ATTACHMENT TO LICENSE AMENDMENT NO. 112

TO FACILITY COMBINED LICENSE NO. NPF-92

DOCKET NO. 52-026

Replace the following pages of the Facility Combined License No. NPF-92 with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Combined License No. NPF-92

REMOVE	INSERT
7	7

Appendix C to Facility Combined License No. NPF-92

REMOVE	INSERT
C-2	C-2
C-46	C-46
C-47	C-47
C-64	C-64
C-64a	C-64a
C-65	C-65
---	C-65a
C-66	C-66
C-67	C-67
C-77	C-77
C-79	C-79
C-99	C-99
C-110	C-110
C-111	C-111
---	C-111a
---	C-111b
C-112	C-112
C-113	C-113
C-133	C-133
---	C-133a
C-134	C-134
C-139	C-139

REMOVE	INSERT
---	C-139a
C-140	C-140
C-141	C-141
C-161	C-161
C-162	C-162
---	C-162a
C-163	C-163
C-177	C-177
C-177a	C-177a
---	C-177b
C-178	C-178
C-179	C-179
C-183	C-183
---	C-183a
C-184	C-184
C-195	C-195
---	C-195a
C-196	C-196
C-197	C-197
C-201	C-201
C-205	C-205
C-211	C-211
C-212	C-212
---	C-212a
C-213	C-213
C-226	C-226
---	C-226a
C-227	C-227
C-228	C-228
C-238	C-238
C-242	C-242
C-243	C-243
C-248	C-248
C-249	C-249
---	C-249a

REMOVE	INSERT
C-255	C-255
C-256	C-256
C-267	C-267
C-273	C-273
C-274	C-274
C-275	C-275
C-278	C-278
C-280	C-280
---	C-280a
C-281	C-281
C-287	C-287
---	C-287a
C-288	C-288
C-289	C-289
C-299	C-299
---	C-299a
C-300	C-300
C-301	C-301
C-302	C-302
C-312	C-312
C-313	C-313
C-323	C-323
C-324	C-324
---	C-324a
C-340	C-340
---	C-340a
---	C-340b
C-341	C-341
C-342	C-342
C-343	C-343
---	C-343a
C-344	C-344
C-352	C-352
---	C-352a
C-353	C-353

REMOVE	INSERT
C-354	C-354
C-355	C-355
C-356	C-356
C-357	C-357
C-360	C-360
C-361	C-361
C-362	C-362
C-363	C-363
C-364	C-364
---	C-364a
C-365	C-365
C-373	C-373
C-374	C-374
---	C-374a
C-379	C-379
C-380	C-380
C-384	C-384
C-389	C-389
C-394	C-394
---	C-394a
C-396	C-396
---	C-396a
C-397	C-397
C-439	C-439
---	C-439a
C-440	C-440
C-447	C-447
---	C-447a

(7) Reporting Requirements

(a) Within 30 days of a change to the initial test program described in FSAR Section 14, Initial Test Program, made in accordance with 10 CFR 50.59 or in accordance with 10 CFR Part 52, Appendix D, Section VIII, "Processes for Changes and Departures," SNC shall report the change to the Director of NRO, or the Director's designee, in accordance with 10 CFR 50.59(d).

(b) SNC shall report any violation of a requirement in Section 2.D.(3), Section 2.D.(4), Section 2.D.(5), and Section 2.D.(6) of this license within 24 hours. Initial notification shall be made to the NRC Operations Center in accordance with 10 CFR 50.72, with written follow up in accordance with 10 CFR 50.73.

(8) Incorporation

The Technical Specifications, Environmental Protection Plan, and ITAAC in Appendices A, B, and C, respectively of this license, as revised through Amendment No. 112, are hereby incorporated into this license.

(9) Technical Specifications

The technical specifications in Appendix A to this license become effective upon a Commission finding that the acceptance criteria in this license (ITAAC) are met in accordance with 10 CFR 52.103(g).

(10) Operational Program Implementation

SNC shall implement the programs or portions of programs identified below, on or before the date SNC achieves the following milestones:

(a) Environmental Qualification Program implemented before initial fuel load;

(b) Reactor Vessel Material Surveillance Program implemented before initial criticality;

(c) Preservice Testing Program implemented before initial fuel load;

(d) Containment Leakage Rate Testing Program implemented before initial fuel load;

(e) Fire Protection Program

1. The fire protection measures in accordance with Regulatory Guide (RG) 1.189 for designated storage building areas (including adjacent fire areas that could affect the storage area) implemented before initial receipt

Table 2.1.1-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1	2.1.01.01	1. The functional arrangement of the FHS is as described in the Design Description of this Section 2.1.1.	Inspection of the as-built system will be performed.	The as-built FHS conforms with the functional arrangement as described in the Design Description of this Section 2.1.1.
2	2.1.01.02	Not used per Amendment No. 112		
3	2.1.01.03	Not used per Amendment No. 85		
4	2.1.01.04	2. The FHS has the refueling machine (RM), the fuel handling machine (FHM), and the new and spent fuel storage racks.	Inspection of the system will be performed.	The FHS has the RM, the FHM, and the new and spent fuel storage racks.
		4. The RM and FHM/spent fuel handling tool (SFHT) gripper assemblies are designed to prevent opening while the weight of the fuel assembly is suspended from the grippers.	The RM and FHM/SFHT gripper assemblies will be tested by operating the open controls of the gripper while suspending a dummy fuel assembly.	The RM and FHM/SFHT gripper assemblies will not open while suspending a dummy test assembly.
		5. The lift height of the RM mast and FHM hoist(s) is limited such that the minimum required depth of water shielding is maintained.	The RM and FHM will be tested by attempting to raise a dummy fuel assembly.	The bottom of the dummy fuel assembly cannot be raised to within 24 ft, 6 in. of the operating deck floor.
		6. The RM and FHM are designed to maintain their load carrying and structural integrity functions during a safe shutdown earthquake.	i) Inspection will be performed to verify that the RM and FHM are located on the nuclear island.	i) The RM and FHM are located on the nuclear island.
		7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks.	ii) Inspection will be performed to verify that the new and spent fuel storage racks are located on the nuclear island.	ii) The new and spent fuel storage racks are located on the nuclear island.
5	2.1.01.05	Not used per Amendment No. 112		
6	2.1.01.06.i	Not used per Amendment No. 112		
7	2.1.01.06.ii	6. The RM and FHM are designed to maintain their load carrying and structural integrity functions during a safe shutdown earthquake.	ii) Type test, analysis, or a combination of type tests and analyses of the RM and FHM will be performed.	ii) A report exists and concludes that the RM and FHM can withstand seismic design basis dynamic loads without loss of load carrying or structural integrity functions.

Table 2.1.1-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
8	2.1.01.07.i	7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks.	i) Analyses will be performed to calculate the effective neutron multiplication factor in the new and spent fuel storage racks during normal conditions.	i) The calculated effective neutron multiplication factor for the new and spent fuel storage racks meets the requirements of 10 CFR 50.68[(1)] limits under normal conditions.
9	2.1.01.07.ii	Not used per Amendment No. 112		
10	2.1.01.07.iii	7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks.	iii) Seismic analysis of the new and spent fuel storage racks will be performed.	iii) A report exists and concludes that the new and spent fuel racks can withstand seismic design basis dynamic loads and maintain the calculated effective neutron multiplication factor required by 10 CFR 50.68[(1)] limits.
11	2.1.01.07.iv	7. The new and spent fuel storage racks maintain the effective neutron multiplication factor required by 10 CFR 50.68 limits during normal operation, design basis seismic events, and design basis dropped spent fuel assembly accidents over the spent fuel storage racks.	iv) Analysis of the spent fuel storage racks under design basis dropped spent fuel assembly loads will be performed.	iv) A report exists and concludes that the spent fuel racks can withstand design basis dropped spent fuel assembly loads and maintain the calculated effective neutron multiplication factor required by 10 CFR 50.68[(1)] limits.

Note:

1. The requirements of 10 CFR 50.68 are summarized as follows:
   - For new fuel storage racks:
     - The effective neutron multiplication factor (K-effective) must not exceed 0.95 when flooded with unborated water and
     - K-effective must not exceed 0.98 with optimum moderator conditions.
   - For spent fuel storage racks:
     - If methodology does not take credit for soluble boron:
       - K-effective must not exceed 0.95 when flooded with unborated water.
     - Or if methodology takes credit for soluble boron:
       - K-effective must not exceed 0.95 when flooded with borated water and
       - K-effective must remain below 1.0 when flooded with unborated water.

Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
33	2.1.02.08d.ii	8.d) The RCS provides automatic depressurization during design basis events.	ii) Inspections and associated analysis of each fourth-stage ADS valve group (four valves and associated piping connected to each hot leg) will be conducted to verify the line routing is consistent with the line routing used for design flow resistance calculations.	ii) The calculated flow resistance for each group of fourth-stage ADS valves and piping with all valves open is: Loop 1: Sub-loop A: $\leq 5.91 \times 10^{-7}$ ft/gpm^2 Sub-loop C: $\leq 6.21 \times 10^{-7}$ ft/gpm^2 Loop 2: Sub-loop B: $\leq 4.65 \times 10^{-7}$ ft/gpm^2 Sub-loop D: $\leq 6.20 \times 10^{-7}$ft/gpm^2
34	2.1.02.08d.iii	8.d) The RCS provides automatic depressurization during design basis events.	iii) Inspections of each fourth-stage ADS valve will be conducted to determine the as-manufactured flow area through each valve.	iii) The as-manufactured flow area through each fourth-stage ADS valve is $\geq$ 67 in^2.
35	2.1.02.08d.iv	8.d) The RCS provides automatic depressurization during design basis events.	iv) Type tests and analysis will be performed to determine the effective flow area through each stage 1,2,3 ADS valve.	iv) A report exists and concludes that the effective flow area through each stage 1 ADS valve $\geq$ 4.6 in^2 and each stage 2,3 ADS valve is $\geq$ 19 in^2.
36	2.1.02.08d.v	8.d) The RCS provides automatic depressurization during design basis events.	v) Inspections of the elevation of the ADS stage 4 valve discharge will be conducted. vi) Inspections of the ADS stage 4 valve discharge will be conducted. viii) Inspection of the elevation of each ADS sparger will be conducted.	v) The minimum elevation of the bottom inside surface of the outlet of these valves is greater than plant elevation 110 feet. vi) The discharge of the ADS stage 4 valves is directed into the steam generator compartments. viii) The centerline of the connection of the sparger arms to the sparger hub is $\leq$ 11.5 feet below the IRWST overflow level.
37	2.1.02.08d.vi	Not used per Amendment No. 112		
38	2.1.02.08d.vii	8.d) The RCS provides automatic depressurization during design basis events.	vii) Inspection of each ADS sparger will be conducted to determine the flow area through the sparger holes.	vii) The flow area through the holes in each ADS sparger is $\geq$ 274 in^2.

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
39	2.1.02.08d.viii	Not used per Amendment No. 112		
40	2.1.02.08e	8.e) The RCS provides emergency letdown during design basis events.	Inspections of the reactor vessel head vent valves and inlet and outlet piping will be conducted.	A report exists and concludes that the capacity of the reactor vessel head vent is sufficient to pass not less than 8.2 lbm/sec at 1250 psia in the RCS.

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
41	2.1.02.09a	9.a) The RCS provides circulation of coolant to remove heat from the core.	Testing and analysis to measure RCS flow with four reactor coolant pumps operating at no-load RCS pressure and temperature conditions will be performed. Analyses will be performed to convert the measured pre-fuel load flow to post-fuel load flow with 10-percent steam generator tube plugging.	The calculated post-fuel load RCS flow rate is $\geq$ 301,670 gpm.
42	2.1.02.09b.i	9.b) The RCS provides the means to control system pressure.	i) Inspections will be performed to verify the rated capacity of pressurizer heater backup groups A and B.	i) Pressurizer heater backup groups A and B each has a rated capacity of at least 168 kW.
43	2.1.02.09b.ii	9.b) The RCS provides the means to control system pressure.	ii) Tests will be performed to verify that the pressurizer spray valves can open and close when operated from the MCR.	ii) Controls in the MCR operate to cause the pressurizer spray valves to open and close.
44	2.1.02.09c	9.c) The pressurizer heaters trip after a signal is generated by the PMS.	Testing will be performed to confirm trip of the pressurizer heaters identified in Table 2.1.2-3.	The pressurizer heaters identified in Table 2.1.2-3 trip after a signal is generated by the PMS.
45	2.1.02.10	Not used per Amendment No. 112		
46	2.1.02.11a.i	11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.1.2-1 to perform active functions.	i) Testing will be performed on the squib valves identified in Table 2.1.2-1 using controls in the MCR without stroking the valve.	i) Controls in the MCR operate to cause a signal at the squib valve electrical leads which is capable of actuating the squib valve.
47	2.1.02.11a.ii	10. Safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR. 11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.1.2-1 to perform active functions.	Inspection will be performed for retrievability of the safety-related displays in the MCR. ii) Stroke testing will be performed on the other remotely operated valves listed in Table 2.1.2-1 using controls in the MCR.	Safety-related displays identified in Table 2.1.2-1 can be retrieved in the MCR. ii) Controls in the MCR operate to cause the remotely operated valves (other than squib valves) to perform active functions.

Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
		11.b) The valves identified in Table 2.1.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.	ii) Testing will be performed on the other remotely operated valves identified in Table 2.1.2-1 using real or simulated signals into the PMS.	ii) The other remotely operated valves identified in Table 2.1.2-1 as having PMS control perform the active function identified in the table after receiving a signal from PMS.
			iii) Testing will be performed to demonstrate that remotely operated RCS valves RCS-V001A/B, V002A/B, V003A/B, V011A/B, V012A/B, V013A/B open within the required response times.	iii) These valves open within the following times after receipt of an actuation signal: V001A/B $\leq$ 40 sec V002A/B, V003A/B $\leq$100 sec V011A/B $\leq$ 30 sec V012A/B, V013A/B $\leq$ 60 sec
		12.b) After loss of motive power, the remotely operated valves identified in Table 2.1.2-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	Upon loss of motive power, each remotely operated valve identified in Table 2.1.2-1 assumes the indicated loss of motive power position.
48	2.1.02.11b.i	11.b) The valves identified in Table 2.1.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.	i) Testing will be performed on the squib valves identified in Table 2.1.2-1 using real or simulated signals into the PMS without stroking the valve.	i) The squib valves receive a signal at the valve electrical leads that is capable of actuating the squib valve.

Table 2.1.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
49	2.1.02.11b.ii	Not used per Amendment No. 112		
50	2.1.02.11b.iii	Not used per Amendment No. 112		
51	2.1.02.11c.i	11.c) The valves identified in Table 2.1.2-1 as having DAS control perform an active safety function after receiving a signal from DAS.	i) Testing will be performed on the squib valves identified in Table 2.1.2-1 using real or simulated signals into the DAS without stroking the valve.	i) The squib valves receive a signal at the valve electrical leads that is capable of actuating the squib valve.
52	2.1.02.11c.ii	11.c) The valves identified in Table 2.1.2-1 as having DAS control perform an active safety function after receiving a signal from DAS.	ii) Testing will be performed on the other remotely operated valves identified in Table 2.1.2-1 using real or simulated signals into the DAS.	ii) The other remotely operated valves identified in Table 2.1.2-1 as having DAS control perform the active function identified in the table after receiving a signal from DAS.
53	2.1.02.12a.i	12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions. ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tests or type tests.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.1.2-1 under design conditions. ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.
54	2.1.02.12a.ii	Not used per Amendment No. 84		

Table 2.1.2-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
55	2.1.02.12a.iii	12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	iii) Tests of the motor-operated valves will be performed under pre-operational flow, differential pressure and temperature conditions.	iii) Each motor-operated valve changes position as indicated in Table 2.1.2-1 under pre-operational test conditions.
56	2.1.02.12a.iv	12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	iv) Tests or type tests of squib valves will be performed that demonstrate the capability of the valve to operate under its design conditions. v) Inspection will be performed for the existence of a report verifying that the as-built squib valves are bounded by the tests or type tests.	iv) A test report exists and concludes that each squib valve changes position as indicated in Table 2.1.2-1 under design conditions. v) A report exists and concludes that the as-built squib valves are bounded by the tests or type tests.
57	2.1.02.12a.v	Not used per Amendment No. 84		
58	2.1.02.12a.vi	Not used per Amendment No. 84		
59	2.1.02.12a.vii	Not used per Amendment No. 84		
60	2.1.02.12a.viii	12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	viii) See item 8.d.iii in this table.	viii) See item 8.d.iii in this table.
61	2.1.02.12a.ix	12.a) The automatic depressurization valves identified in Table 2.1.2-1 perform an active safety-related function to change position as indicated in the table.	ix) See item 8.d.iv in this table.	ix) See item 8.d.iv in this table.
62	2.1.02.12b	Not used per Amendment No. 112		

Table 2.1.3-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
68	2.1.03.01	1. The functional arrangement of the RXS is as described in the Design Description of this Section 2.1.3.	Inspection of the as-built system will be performed.	The as-built RXS conforms with the functional arrangement as described in the Design Description of this Section 2.1.3.
69	2.1.03.02a	2.a) The reactor upper internals rod guide arrangement is as shown in Figure 2.1.3-1. 2.b) The control assemblies (rod cluster and gray rod) and drive rod arrangement is as shown in Figure 2.1.3-2.	Inspection of the as-built system will be performed. Inspection of the as-built system will be performed.	The as-built RXS will accommodate the fuel assembly and control rod drive mechanism pattern shown in Figure 2.1.3-1. The as-built RXS will accommodate the control assemblies (rod cluster and gray rod) and drive rod arrangement shown in Figure 2.1.3-2.
70	2.1.03.02b	Not used per Amendment No. 112		
71	2.1.03.02c	2.c) The reactor vessel arrangement is as shown in Figure 2.1.3-3.	Inspection of the as-built system will be performed.	The as-built RXS will accommodate the reactor vessel arrangement shown in Figure 2.1.3-3.
72	2.1.03.03	3. The components identified in Table 2.1.3-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements. 4. Pressure boundary welds in components identified in Table 2.1.3-1 as ASME Code Section III meet ASME Code Section III requirements. 5. The pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) identified in Table 2.1.3-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.	Inspection will be conducted of the as-built components as documented in the ASME design reports. Inspection of as-built pressure boundary welds will be performed in accordance with the ASME Code Section III. A hydrostatic test will be performed on the components of the RXS required by the ASME Code Section III to be hydrostatically tested.	The ASME Code Section III design reports exist for the as-built components identified in Table 2.1.3-1 as ASME Code Section III. A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds. A report exists and concludes that the results of the hydrostatic test of the pressure boundary components (RV, CRDMs, and incore instrument QuickLoc assemblies) conform with the requirements of the ASME Code Section III.
73	2.1.03.04	Not used per Amendment No. 84		
74	2.1.03.05	Not used per Amendment No. 84		

Table 2.1.3-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
77	2.1.03.06.iii	Not used per Amendment No. 84		
78	2.1.03.07.i	7. The reactor internals will withstand the effects of flow induced vibration.	i) A vibration type test will be conducted on the (first unit) reactor internals representative of AP1000.	i) A report exists and concludes that the (first unit) reactor internals have no observable damage or loose parts as a result of the vibration type test.
			ii) A pre-test inspection, a flow test and a post-test inspection will be conducted on the as-built reactor internals.	ii) The as-built reactor internals have no observable damage or loose parts.
		10. The reactor lower internals assembly is equipped with holders for at least eight capsules for storing material surveillance specimens.	Inspection of the reactor lower internals assembly for the presence of capsules will be performed.	At least eight capsules are in the reactor lower internals assembly.
79	2.1.03.07.ii	Not used per Amendment No. 112		
80	2.1.03.08	8. The reactor vessel direct vessel injection nozzle limits the blowdown of the RCS following the break of a direct vessel injection line.	An inspection will be conducted to verify the flow area of the flow limiting venturi within each direct vessel injection nozzle.	The throat area of the direct vessel injection line nozzle flow limiting venturi is less than or equal to 12.57 in^2.
81	2.1.03.09a.i	Not used per Amendment No. 84		
82	2.1.03.09a.ii	Not used per Amendment No. 84		
83	2.1.03.09b	9.b) The Class 1E components identified in Table 2.1.3-1 are powered from their respective Class 1E division.	Testing will be performed by providing simulated test signals in each Class 1E division.	A simulated test signal exists for Class 1E equipment identified in Table 2.1.3-1 when the assigned Class 1E division is provided the test signal.
84	2.1.03.09c	Not used per Amendment No. 84		
85	2.1.03.10	Not used per Amendment No. 112		
86	2.1.03.11	11. The RPV beltline material has a Charpy upper-shelf energy of no less than 75 ft-lb.	Manufacturing tests of the Charpy V-Notch specimen of the RPV beltline material will be performed.	A report exists and concludes that the initial RPV beltline Charpy upper-shelf energy is no less than 75 ft-lb.

Table 2.2.1-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
110	2.2.01.09	9. Safety-related displays identified in Table 2.2.1-1 can be retrieved in the MCR. 10.a) Controls exist in the MCR to cause those remotely operated valves identified in Table 2.2.1-1 to perform active functions. 10.b) The valves identified in Table 2.2.1-1 as having PMS control perform an active safety function after receiving a signal from the PMS.	Inspection will be performed for retrievability of the safety-related displays in the MCR. Stroke testing will be performed on remotely operated valves identified in Table 2.2.1-1 using the controls in the MCR. Testing will be performed on remotely operated valves listed in Table 2.2.1-1 using real or simulated signals into the PMS.	Safety-related displays identified in Table 2.2.1-1 can be retrieved in the MCR. Controls in the MCR operate to cause remotely operated valves identified in Table 2.2.1-1 to perform active safety functions. The remotely operated valves identified in Table 2.2.1-1 as having PMS control perform the active function identified in the table after receiving a signal from PMS.
111	2.2.01.10a	Not used per Amendment No. 112		
112	2.2.01.10b	Not used per Amendment No. 112		
113	2.2.01.10c	10.c) The valves identified in Table 2.2.1-1 as having DAS control perform an active safety function after receiving a signal from DAS.	Testing will be performed on remotely operated valves listed in Table 2.2.1-1 using real or simulated signals into the DAS.	The remotely operated valves identified in Table 2.2.1-1 as having DAS control perform the active function identified in the table after receiving a signal from DAS.
114	2.2.01.11a.i	11.a) The motor-operated and check valves identified in Table 2.2.1-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed to demonstrate the capability of each valve to operate under design conditions. ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tests or type tests.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.1-1 under design conditions. ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.

Table 2.2.2-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
133	2.2.02.06b	6.b) The Class 1E components identified in Table 2.2.2-1 are powered from their respective Class 1E division.	Testing will be performed by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E components identified in Table 2.2.2-1 when the assigned Class 1E division is provided the test signal.
134	2.2.02.06c	Not used per Amendment No. 84		
135	2.2.02.07a.i	Not used per Amendment No. 112		
136	2.2.02.07a.ii	Not used per Amendment No. 112		
137	2.2.02.07a.iii	7.a) The PCS delivers water from the PCCWST to the outside, top of the containment vessel. 7.f) The PCS provides a flow path for long-term water makeup from the PCCWST to the spent fuel pool. 8.a) The PCCAWST contains an inventory of cooling water sufficient for PCS containment cooling from hour 72 through day 7.	iii) Inspection will be performed to determine the PCCWST standpipes elevations. ii) Inspection of the PCCWST will be performed. Inspection of the PCCAWST will be performed.	iii) The elevations of the standpipes above the tank floor are: – 16.8 ft ± 0.2 ft – 20.3 ft ± 0.2 ft – 24.1 ft ± 0.2 ft ii) The volume of the PCCWST is greater than 756,700 gallons. The volume of the PCCAWST is greater than 780,000 gallons.

Table 2.2.2-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
138	2.2.02.07b.i	7.a) The PCS delivers water from the PCCWST to the outside, top of the containment vessel.	i) Testing will be performed to measure the PCCWST delivery rate from each one of the three parallel flow paths.	i) When tested, each one of the three flow paths delivers water at greater than or equal to: – 469.1 gpm at a PCCWST water level of 27.4 ft + 0.2, - 0.0 ft above the tank floor – 226.6 gpm when the PCCWST water level uncovers the first (i.e. tallest) standpipe – 176.3 gpm when the PCCWST water level uncovers the second tallest standpipe – 144.2 gpm when the PCCWST water level uncovers the third tallest standpipe
			ii) Testing and or analysis will be performed to demonstrate the PCCWST inventory provides 72 hours of adequate water flow.	ii) When tested and/or analyzed with all flow paths delivering and an initial water level at 27.4 + 0.2, - 0.00 ft, the PCCWST water inventory provides greater than or equal to 72 hours of flow, and the flow rate at 72 hours is greater than or equal to 100.7 gpm.
		7.b) The PCS wets the outside surface of the containment vessel. The inside and the outside of the containment vessel above the operating deck are coated with an inorganic zinc material.	i) Testing will be performed to measure the outside wetted surface of the containment vessel with one of the three parallel flow paths delivering water to the top of the containment vessel.	i) A report exists and concludes that when the water in the PCCWST uncovers the standpipes at the following levels, the water delivered by one of the three parallel flow paths to the containment shell provides coverage measured at the spring line that is equal to or greater than the stated coverages. - 24.1 ± 0.2 ft above the tank floor; at least 90% of the perimeter is wetted. - 20.3 ± 0.2 ft above the tank floor; at least 72.9% of the perimeter is wetted. - 16.8 ± 0.2 ft above the tank floor; at least 59.6% of the perimeter is wetted.
			ii) Inspection of the containment vessel exterior coating will be conducted.	ii) A report exists and concludes that the containment vessel exterior surface is coated with an inorganic zinc coating above elevation 135'-3".

Table 2.2.2-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			iii) Inspection of the containment vessel interior coating will be conducted.	iii) A report exists and concludes that the containment vessel interior surface is coated with an inorganic zinc coating above 7' above the operating deck.
		7.c) The PCS provides air flow over the outside of the containment vessel by a natural circulation air flow path from the air inlets to the air discharge structure.	Inspections of the air flow path segments will be performed.	Flow paths exist at each of the following locations: – Air inlets – Base of the outer annulus – Base of the inner annulus – Discharge structure
		7.d) The PCS drains the excess water from the outside of the containment vessel through the two upper annulus drains.	Testing will be performed to verify the upper annulus drain flow performance.	With a water level within the upper annulus 10" ± 1" above the annulus drain inlet, the flow rate through each drain is greater than or equal to 525 gpm.
		7.e) The PCS provides a flow path for long-term water makeup to the PCCWST.	ii) Testing will be performed to measure the delivery rate from the long-term makeup connection to the PCCWST.	ii) With a water supply connected to the PCS long-term makeup connection, each PCS recirculation pump delivers greater than or equal to 100 gpm when tested separately.
		9. Safety-related displays identified in Table 2.2.2-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.2.2-1 can be retrieved in the MCR.
		10.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.2-1 to perform active functions.	Stroke testing will be performed on the remotely operated valves identified in Table 2.2.2-1 using the controls in the MCR.	Controls in the MCR operate to cause remotely operated valves identified in Table 2.2.2-1 to perform active functions.
		10.b) The valves identified in Table 2.2.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.	Testing will be performed on the remotely operated valves in Table 2.2.2-1 using real or simulated signals into the PMS.	The remotely operated valves identified in Table 2.2.2-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.
		11.a) The motor-operated valves identified in Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.	iii) Tests of the motor-operated valves will be performed under preoperational flow, differential pressure, and temperature conditions.	iii) Each motor-operated valve changes position as indicated in Table 2.2.2-1 under preoperational test conditions.
		11.b) After loss of motive power, the remotely operated valves identified in Table 2.2.2-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	After loss of motive power, each remotely operated valve identified in Table 2.2.2-1 assumes the indicated loss of motive power position.

Table 2.2.2-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
139	2.2.02.07b.ii	Not used per Amendment No. 112		
140	2.2.02.07b.iii	Not used per Amendment No. 112		
141	2.2.02.07c	Not used per Amendment No. 112		
142	2.2.02.07d	Not used per Amendment No. 112		

Table 2.2.2-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
143	2.2.02.07e.i	Not used per Amendment No. 84		
144	2.2.02.07e.ii	Not used per Amendment No. 112		
145	2.2.02.07f.i	7.f) The PCS provides a flow path for long-term water makeup from the PCCWST to the spent fuel pool. 8.b) The PCS delivers water from the PCCAWST to the PCCWST and spent fuel pool simultaneously.	i) Testing will be performed to measure the delivery rate from the PCCWST to the spent fuel pool. Testing will be performed to measure the delivery rate from the PCCAWST to the PCCWST and spent fuel pool simultaneously.	i) With the PCCWST water level at 27.4 ft + 0.2, - 0.0 ft above the bottom of the tank, the flow path from the PCCWST to the spent fuel pool delivers greater than or equal to 118 gpm. With PCCAWST aligned to the suction of the recirculation pumps, each pump delivers greater than or equal to 100 gpm to the PCCWST and 35 gpm to the spent fuel pool simultaneously when each pump is tested separately.
146	2.2.02.07f.ii	Not used per Amendment No. 112		
147	2.2.02.08a	Not used per Amendment No. 112		
148	2.2.02.08b	Not used per Amendment No. 112		
149	2.2.02.08c	Not used per Amendment No. 84		
150	2.2.02.09	Not used per Amendment No. 112		
151	2.2.02.10a	Not used per Amendment No. 112		

Table 2.2.2-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
152	2.2.02.10b	Not used per Amendment No. 112		
153	2.2.02.10c	10.c) The valves identified in Table 2.2.2-1 as having DAS control perform an active safety function after receiving a signal from the DAS.	Testing will be performed on the remotely operated valves listed in Table 2.2.2-1 using real or simulated signals into the DAS.	The remotely operated valves identified in Table 2.2.2-1 as having DAS control perform the active function identified in the table after receiving a signal from the DAS.
154	2.2.02.11a.i	11.a) The motor-operated valves identified in Table 2.2.2-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed to demonstrate the capability of the valve to operate under its design conditions. ii) Inspection will be performed for the existence of a report verifying that the capability of the as-built motor-operated valves bound the tested conditions.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.2-1 under design conditions. ii) A report exists and concludes that the capability of the as-built motor-operated valves bound the tested conditions.
155	2.2.02.11a.ii	Not used per Amendment No. 84		
156	2.2.02.11a.iii	Not used per Amendment No. 112		
157	2.2.02.11b	Not used per Amendment No. 112		

Table 2.2.2-4		
Component Name	**Tag No.**	**Component Location**
PCCWST	PCS-MT-01	Shield Building
PCCAWST	PCS-MT-05	Yard
Recirculation Pump A	PCS-MP-01A	Auxiliary Building
Recirculation Pump B	PCS-MP-01B	Auxiliary Building

Table 2.2.3-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
180	2.2.03.08c.i.04	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	i) A low-pressure injection test and analysis for each CMT, each accumulator, each IRWST injection line, and each containment recirculation line will be conducted. Each test is initiated by opening isolation valve(s) in the line being tested. Test fixtures may be used to simulate squib valves. 4. Containment Recirculation: A temporary water supply will be connected to the recirculation lines. All valves in these lines will be open during the test. Sufficient flow will be provided to open the check valves.	i) The injection line flow resistance from each source is as follows: 4. Containment Recirculation: The calculated flow resistance for each containment recirculation line between the containment and the reactor vessel is: Line A: $\leq 1.33 \times 10^{-5}$ ft/gpm^2 and Line B: $\leq 1.21 \times 10^{-5}$ ft/gpm^2.
181	2.2.03.08c.ii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	ii) A low-pressure test and analysis will be conducted for each CMT to determine piping flow resistance from the cold leg to the CMT. The test will be performed by filling the CMT via the cold leg balance line by operating the normal residual heat removal pumps.	ii) The flow resistance from the cold leg to the CMT is $\leq 7.21 \times 10^{-6}$ ft/gpm^2.
182	2.2.03.08c.iii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	iii) Inspections of the routing of the following pipe lines will be conducted: – CMT inlet line, cold leg to high point – PRHR HX inlet line, hot leg to high point	iii) These lines have no downward sloping sections between the connection to the RCS and the high point of the line.

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
183	2.2.03.08c.iv.01	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	iv) Inspections of the elevation of the following pipe lines will be conducted: 1. IRWST injection lines; IRWST connection to DVI nozzles v) Inspections of the elevation of the following tanks will be conducted: 2. IRWST	iv) The maximum elevation of the top inside surface of these lines is less than the elevation of: 1. IRWST bottom inside surface v) The elevation of the bottom inside tank surface is higher than the direct vessel injection nozzle centerline by the following: 2. IRWST ≥ 3.4 ft
184	2.2.03.08c.iv.02	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	iv) Inspections of the elevation of the following pipe lines will be conducted: 2. Containment recirculation lines; containment to IRWST lines	iv) The maximum elevation of the top inside surface of these lines is less than the elevation of: 2. IRWST bottom inside surface

Table 2.2.3-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
185	2.2.03.08c.iv.03	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	iv) Inspections of the elevation of the following pipe lines will be conducted: 3. CMT discharge lines to DVI connection	iv) The maximum elevation of the top inside surface of these lines is less than the elevation of: 3. CMT bottom inside surface
186	2.2.03.08c.iv.04	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	iv) Inspections of the elevation of the following pipe lines will be conducted: 4. PRHR HX outlet line to SG connection	iv) The maximum elevation of the top inside surface of these lines is less than the elevation of: 4. PRHR HX lower channel head top inside surface
187	2.2.03.08c.v.01	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	v) Inspections of the elevation of the following tanks will be conducted: 1. CMTs	v) The elevation of the bottom inside tank surface is higher than the direct vessel injection nozzle centerline by the following: 1. CMTs ≥ 7.5 ft
188	2.2.03.08c.v.02	Not used per Amendment No. 112		
189	2.2.03.08c.vi.01	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	vi) Inspections of each of the following tanks will be conducted: 1. CMTs	vi) The calculated volume of each of the following tanks is as follows: 1. CMTs ≥ 2487 ft^3
190	2.2.03.08c.vi.02	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	vi) Inspections of each of the following tanks will be conducted: 2. Accumulators	vi) The calculated volume of each of the following tanks is as follows: 2. Accumulators ≥ 2000 ft^3
191	2.2.03.08c.vi.03	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	vi) Inspections of each of the following tanks will be conducted: 3.– IRWST	vi) The calculated volume of each of the following tanks is as follows: 3. IRWST ≥ 73,100 ft^3 between the tank outlet connection and the tank overflow

Table 2.2.3-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
202	2.2.03.09a.ii	9.a) The PXS provides a function to cool the outside of the reactor vessel during a severe accident.	ii) Inspections of the as-built reactor vessel insulation will be performed.	ii) The combined total flow area of the water inlets is not less than 6 ft^2. The combined total flow area of the steam outlet(s) is not less than 12 ft^2. A report exists and concludes that the minimum flow area between the vessel insulation and reactor vessel for the flow path that vents steam is not less than 12 ft^2 considering the maximum deflection of the vessel insulation with a static pressure of 12.95 ft of water.
203	2.2.03.09a.iii	9.a) The PXS provides a function to cool the outside of the reactor vessel during a severe accident.	iii) Inspections will be conducted of the flow path(s) from the loop compartments to the reactor vessel cavity.	iii) A flow path with a flow area not less than 6 ft^2 exists from the loop compartment to the reactor vessel cavity.
204	2.2.03.09b	9.b) The accumulator discharge check valves (PXS-PL-V028A/B and V029A/B) are of a different check valve type than the CMT discharge check valves (PXS-PL-V016A/B and V017A/B).	An inspection of the accumulator and CMT discharge check valves is performed.	The accumulator discharge check valves are of a different check valve type than the CMT discharge check valves.
205	2.2.03.09c	9.c) The equipment listed in Table 2.2.3-6 has sufficient thermal lag to withstand the effects of identified hydrogen burns associated with severe accidents.	Type tests, analyses, or a combination of type tests and analyses will be performed to determine the thermal lag of this equipment.	A report exists and concludes that the thermal lag of this equipment is greater than the value required.

Table 2.2.3-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
206	2.2.03.10	10. Safety-related displays of the parameters identified in Table 2.2.3-1 can be retrieved in the MCR.	Inspection will be performed for the retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.2.3-1 can be retrieved in the MCR.
		11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.3-1 to perform their active function(s).	ii) Stroke testing will be performed on remotely operated valves other than squib valves identified in Table 2.2.3-1 using the controls in the MCR.	ii) Controls in the MCR operate to cause remotely operated valves other than squib valves to perform their active functions.
		11.b) The valves identified in Table 2.2.3-1 as having PMS control perform their active function after receiving a signal from the PMS.	ii) Testing will be performed on the remotely operated valves other than squib valves identified in Table 2.2.3-1 using real or simulated signals into the PMS.	ii) Remotely operated valves other than squib valves perform the active function identified in the table after a signal is input to the PMS.
			iii) Testing will be performed to demonstrate that remotely operated PXS isolation valves PXS-V014A/B, V015A/B, V108A/B open within the required response times.	iii) These valves open within 20 seconds after receipt of an actuation signal.
		12.b) After loss of motive power, the remotely operated valves identified in Table 2.2.3-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	After loss of motive power, each remotely operated valve identified in Table 2.2.3-1 assumes the indicated loss of motive power position.
		13. Displays of the parameters identified in Table 2.2.3-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.2.3-3 in the MCR.	Displays identified in Table 2.2.3-3 can be retrieved in the MCR.
207	2.2.03.11a.i	11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.3-1 to perform their active function(s).	i) Testing will be performed on the squib valves identified in Table 2.2.3-1 using controls in the MCR, without stroking the valve.	i) Controls in the MCR operate to cause a signal at the squib valve electrical leads that is capable of actuating the squib valve.
208	2.2.03.11a.ii	Not used per Amendment No. 112		

Table 2.2.3-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
209	2.2.03.11b.i	11.b) The valves identified in Table 2.2.3-1 as having PMS control perform their active function after receiving a signal from the PMS.	i) Testing will be performed on the squib valves identified in Table 2.2.3-1 using real or simulated signals into the PMS without stroking the valve.	i) Squib valves receive an electrical signal at the valve electrical leads that is capable of actuating the valve after a signal is input to the PMS.
210	2.2.03.11b.ii	Not used per Amendment No. 112		
211	2.2.03.11b.iii	Not used per Amendment No. 112		
212	2.2.03.11c.i	11.c) The valves identified in Table 2.2.3-1 as having DAS control perform their active function after receiving a signal from the DAS.	i) Testing will be performed on the squib valves identified in Table 2.2.3-1 using real or simulated signals into the DAS without stroking the valve.	i) Squib valves receive an electrical signal at the valve electrical leads that is capable of actuating the valve after a signal is input to the DAS.
213	2.2.03.11c.ii	11.c) The valves identified in Table 2.2.3-1 as having DAS control perform their active function after receiving a signal from the DAS.	ii) Testing will be performed on the remotely operated valves other than squib valves identified in Table 2.2.3-1 using real or simulated signals into the DAS.	ii) Remotely operated valves other than squib valves perform the active function identified in Table 2.2.3-1 after a signal is input to the DAS.
214	2.2.03.12a.i	12.a) The squib valves and check valves identified in Table 2.2.3-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of squib valves will be performed that demonstrate the capability of the valve to operate under its design condition. ii) Inspection will be performed for the existence of a report verifying that the as-built squib valves are bounded by the tests or type tests.	i) A test report exists and concludes that each squib valve changes position as indicated in Table 2.2.3-1 under design conditions. ii) A report exists and concludes that the as-built squib valves are bounded by the tests or type tests.
215	2.2.03.12a.ii	Not used per Amendment No. 84		

Table 2.2.3-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
216	2.2.03.12a.iv	12.a) The squib valves and check valves identified in Table 2.2.3-1 perform an active safety-related function to change position as indicated in the table.	iv) Exercise testing of the check valves with active safety functions identified in Table 2.2.3-1 will be performed under preoperational test pressure, temperature, and fluid flow conditions.	iv) Each check valve changes position as indicated in Table 2.2.3-1
217	2.2.03.12b	Not used per Amendment No. 112		
218	2.2.03.13	Not used per Amendment No. 112		

Table 2.2.3-5		
Component Name	**Tag No.**	**Component Location**
Passive Residual Heat Removal Heat Exchanger (PRHR HX)	PXS-ME-01	Containment Building
Accumulator Tank A	PXS-MT-01A	Containment Building
Accumulator Tank B	PXS-MT-01B	Containment Building
Core Makeup Tank (CMT) A	PXS-MT-02A	Containment Building
CMT B	PXS-MT-02B	Containment Building
IRWST	PXS-MT-03	Containment Building
IRWST Screen A	PXS-MY-Y01A	Containment Building
IRWST Screen B	PXS-MY-Y01B	Containment Building
IRWST Screen C	PXS-MY-Y01C	Containment Building
Containment Recirculation Screen A	PXS-MY-Y02A	Containment Building
Containment Recirculation Screen B	PXS-MY-Y02B	Containment Building
pH Adjustment Basket 3A	PXS-MY-Y03A	Containment Building
pH Adjustment Basket 3B	PXS-MY-Y03B	Containment Building
pH Adjustment Basket 4A	PXS-MY-Y04A	Containment Building
pH Adjustment Basket 4B	PXS-MY-Y04B	Containment Building

Table 2.2.4-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
237	2.2.04.08b.i	Not used per Amendment No. 84		
238	2.2.04.08b.ii	8.b) During design basis events, the SGS limits steam generator blowdown and feedwater flow to the steam generator.	ii) Inspection will be performed for the existence of a report confirming that the area of the flow limiting orifice within the SG main steam outlet nozzle will limit releases to the containment.	ii) A report exists to indicate the installed flow limiting orifice within the SG main steam line discharge nozzle does not exceed 1.4 sq. ft.
239	2.2.04.08c	Not used per Amendment No. 84		
240	2.2.04.09a.i	Not used per Amendment No. 112		
241	2.2.04.09a.ii	9.a) Components within the main steam system, main and startup feedwater system, and the main turbine system identified in Table 2.2.4-3 provide backup isolation of the SGS to limit steam generator blowdown and feedwater flow to the steam generator.	ii) Testing will be performed to confirm the trip of the pumps identified in Table 2.2.4-3.	ii) The pumps identified in Table 2.2.4-3 trip after a signal is generated by the PMS.
242	2.2.04.09b.i	Not used per Amendment No. 84		
243	2.2.04.09b.ii	9.b) During shutdown operations, the SGS removes decay heat by delivery of startup feedwater to the steam generator and venting of steam from the steam generators to the atmosphere.	ii) Type tests and/or analyses will be performed to demonstrate the ability of the power-operated relief valves to discharge steam from the steam generators to the atmosphere.	ii) A report exists and concludes that each power-operated relief valve will relieve greater than 300,000 lb/hr at 1106 psia ±10 psi.
244	2.2.04.10	Not used per Amendment No. 112		

Table 2.2.4-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
245	2.2.04.11a	Not used per Amendment No. 112		
246	2.2.04.11b.i	Not used per Amendment No. 112		
247	2.2.04.11b.ii	Not used per Amendment No. 112		
248	2.2.04.12a.i	12.a) The motor-operated valves identified in Table 2.2.4-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed to demonstrate the capability of the valve to operate under its design conditions. ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tests or type tests.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.2.4-1 under design conditions. ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.
249	2.2.04.12a.ii	Not used per Amendment No. 84		
250	2.2.04.12a.iii	9.a) Components within the main steam system, main and startup feedwater system, and the main turbine system identified in Table 2.2.4-3 provide backup isolation of the SGS to limit steam generator blowdown and feedwater flow to the steam generator. 10. Safety-related displays identified in Table 2.2.4-1 can be retrieved in the MCR. 11.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.2.4-1 to perform active functions. 11.b) The valves identified in Table 2.2.4-1 as having PMS control perform an active safety function after receiving a signal from PMS.	i) Testing will be performed to confirm closure of the valves identified in Table 2.2.4-3. Inspection will be performed for retrievability of the safety-related displays in the MCR. Stroke testing will be performed on the remotely operated valves listed in Table 2.2.4-1 using controls in the MCR. i) Testing will be performed on the remotely operated valves listed in Table 2.2.4-1 using real or simulated signals into the PMS. ii) Testing will be performed to demonstrate that remotely operated SGS isolation valves SGS-V027A/B, V040A/B, V057A/B, V250A/B close within the required response times.	i) The valves identified in Table 2.2.4-3 close after a signal is generated by the PMS. Safety-related displays identified in Table 2.2.4-1 can be retrieved in the MCR. Controls in the MCR operate to cause the remotely operated valves to perform active safety functions. i) The remotely-operated valves identified in Table 2.2.4-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS. ii) These valves close within the following times after receipt of an actuation signal: V027A/B < 44 sec V040A/B, V057A/B < 5 sec V250A/B < 5 sec

Table 2.2.4-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
		12.a) The motor-operated valves identified in Table 2.2.4-1 perform an active safety-related function to change position as indicated in the table.	iii) Tests of the motor-operated valves will be performed under pre-operational flow, differential pressure, and temperature conditions.	iii) Each motor-operated valve changes position as indicated in Table 2.2.4-1 under pre-operational test conditions.
		12.b) After loss of motive power, the remotely operated valves identified in Table 2.2.4-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	After loss of motive power, each remotely operated valve identified in Table 2.2.4-1 assumes the indicated loss of motive power position. Motive power to SGS-PL-V040A/B and SGS-PL-V057A/B is electric power to the actuator from plant services.

Table 2.2.4-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
251	2.2.04.12b	Not used per Amendment No. 112		

Table 2.2.4-5		
Component Name	**Tag No.**	**Component Location**
Main Steam Line Isolation Valve	SGS-PL-V040A	Auxiliary Building
Main Steam Line Isolation Valve	SGS-PL-V040B	Auxiliary Building
Main Feedwater Isolation Valve	SGS-PL-V057A	Auxiliary Building
Main Feedwater Isolation Valve	SGS-PL-V057B	Auxiliary Building
Main Feedwater Control Valve	SGS-PL-V250A	Auxiliary Building
Main Feedwater Control Valve	SGS-PL-V250B	Auxiliary Building
Turbine Stop Valves	MTS-PL-V001A MTS-PL-V001B MTS-PL-V003A MTS-PL-V003B	Turbine Building
Turbine Control Valves	MTS-PL-V002A MTS-PL-V002B MTS-PL-V004A MTS-PL-V004B	Turbine Building
Main Feedwater Pumps	FWS-MP-02A FWS-MP-02B FWS-MP-02C	Turbine Building
Feedwater Booster Pumps	FWS-MP-01A FWS-MP-01B FWS-MP-01C	Turbine Building

Table 2.2.5-5 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
259	2.2.05.05a.i	5.a) The seismic Category I equipment identified in Table 2.2.5-1 can withstand seismic design basis loads without loss of safety function.	i) Inspection will be performed to verify that the seismic Category I equipment and valves identified in Table 2.2.5-1 are located on the Nuclear Island.	i) The seismic Category I equipment identified in Table 2.2.5-1 is located on the Nuclear Island.
			ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.	ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.
			iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.	iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.
260	2.2.05.05a.ii	Not used per Amendment No. 84		
261	2.2.05.05a.iii	Not used per Amendment No. 84		
262	2.2.05.05b	Not used per Amendment No. 84		
263	2.2.05.06a	6.a) The Class 1E components identified in Table 2.2.5-1 are powered from their respective Class 1E division.	Testing will be performed by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.2.5-1 when the assigned Class 1E division is provided the test signal.
264	2.2.05.06b	Not used per Amendment No. 84		
265	2.2.05.07a.i	7.a) The VES provides a 72-hour supply of breathable quality air for the occupants of the MCR.	i) Testing will be performed to confirm that the required amount of air flow is delivered to the MCR.	i) The air flow rate from the VES is at least 60 scfm and not more than 70 scfm.
			iii) MCR air samples will be taken during VES testing and analyzed for quality.	iii) The MCR air is of breathable quality.
		7.b) The VES maintains the MCR pressure boundary at a positive pressure with respect to the surrounding areas.	i) Testing will be performed with VES flow rate between 60 and 70 scfm to confirm that the MCR is capable of maintaining the required pressurization of the pressure boundary.	i) The MCR pressure boundary is pressurized to greater than or equal to 1/8-in. water gauge with respect to the surrounding area.

Table 2.2.5-5 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			ii) Air leakage into the MCR will be measured during VES testing using a tracer gas.	ii) Air leakage into the MCR is less than or equal to 10 cfm.
		7.d) The system provides a passive recirculation flow of MCR air to maintain main control room dose rates below an acceptable level during VES operation.	Testing will be performed to confirm that the required amount of air flow circulates through the MCR passive filtration system.	The air flow rate at the outlet of the MCR passive filtration system is at least 600 cfm greater than the flow measured by VES-003A/B.
		8. Safety-related displays identified in Table 2.2.5-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.2.5-1 can be retrieved in the MCR.
		9.a) Controls exist in the MCR to cause remotely operated valves identified in Table 2.2.5-1 to perform their active functions.	Stroke testing will be performed on remotely operated valves identified in Table 2.2.5-1 using the controls in the MCR.	Controls in the MCR operate to cause remotely operated valves identified in Table 2.2.5-1 to perform their active safety functions.
		9.b) The valves identified in Table 2.2.5-1 as having PMS control perform their active safety function after receiving a signal from the PMS.	Testing will be performed on remotely operated valves listed in Table 2.2.5-1 using real or simulated signals into the PMS.	The remotely operated valves identified in Table 2.2.5-1 as having PMS control perform the active safety function identified in the table after receiving a signal from the PMS.
		10. After loss of motive power, the remotely operated valves identified in Table 2.2.5-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	After loss of motive power, each remotely operated valve identified in Table 2.2.5-1 assumes the indicated loss of motive power position.
		11. Displays of the parameters identified in Table 2.2.5-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.2.5-3 can be retrieved in the MCR.
		12. The background noise level in the MCR does not exceed 65 dB(A) at the operator workstations when VES is operating.	The as-built VES will be operated, and background noise levels in the MCR will be measured at the operator work stations with the plant not operating.	The background noise level in the MCR does not exceed 65 dB(A) at the operator work stations when the VES is operating.

Table 2.2.5-5 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
266	2.2.05.07a.ii	7.a) The VES provides a 72-hour supply of breathable quality air for the occupants of the MCR.	ii) Analysis of storage capacity will be performed based on manufacturers data.	ii) The calculated storage capacity is greater than or equal to 327,574 scf.
267	2.2.05.07a.iii	Not used per Amendment No. 112		
268	2.2.05.07b.i	Not used per Amendment No. 112		
269	2.2.05.07b.ii	Not used per Amendment No. 112		

Table 2.2.5-5 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
270	2.2.05.07c	7.c) The heat loads within the MCR, the I&C equipment rooms, and the Class 1E dc equipment rooms are within design basis assumptions to limit the heatup of the rooms identified in Table 2.2.5-4.	An analysis will be performed to determine that the heat loads from as-built equipment within the rooms identified in Table 2.2.5-4 are less than or equal to the design basis assumptions.	A report exists and concludes that: the heat loads within rooms identified in Table 2.2.5-4 are less than or equal to the specified values or that an analysis report exists that concludes: – The temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period. – The maximum temperature for the 72-hour period for the I&C rooms is less than or equal to 120°F. – The maximum temperature for the 72-hour period for the Class 1E dc equipment rooms is less than or equal to 120°F.
271	2.2.05.07d	Not used per Amendment No. 112		
272	2.2.05.08	Not used per Amendment No. 112		
273	2.2.05.09a	Not used per Amendment No. 112		
274	2.2.05.09b	Not used per Amendment No. 112		
877	2.2.05.09c	9.c) The MCR Load Shed Panels identified in Table 2.2.5-1 perform their active safety function after receiving a signal from the PMS.	Testing will be performed on the MCR Load Shed Panels listed in Table 2.2.5-1 using real or simulated signals into the PMS.	The MCR Load Shed Panels identified in Table 2.2.5-1 perform their active safety function identified in the table after receiving a signal from the PMS.

Table 2.2.5-5 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
275	2.2.05.10	Not used per Amendment No. 112		
276	2.2.05.11	Not used per Amendment No. 112		
277	2.2.05.12	Not used per Amendment No. 112		

Table 2.2.5-6		
Component Name	**Tag Number**	**Component Location**
Emergency Air Storage Tank 01	VES-MT-01	Auxiliary Building
Emergency Air Storage Tank 02	VES-MT-02	Auxiliary Building
Emergency Air Storage Tank 03	VES-MT-03	Auxiliary Building
Emergency Air Storage Tank 04	VES-MT-04	Auxiliary Building
Emergency Air Storage Tank 05	VES-MT-05	Auxiliary Building
Emergency Air Storage Tank 06	VES-MT-06	Auxiliary Building
Emergency Air Storage Tank 07	VES-MT-07	Auxiliary Building
Emergency Air Storage Tank 08	VES-MT-08	Auxiliary Building
Emergency Air Storage Tank 09	VES-MT-09	Auxiliary Building
Emergency Air Storage Tank 10	VES-MT-10	Auxiliary Building
Emergency Air Storage Tank 11	VES-MT-11	Auxiliary Building
Emergency Air Storage Tank 12	VES-MT-12	Auxiliary Building
Emergency Air Storage Tank 13	VES-MT-13	Auxiliary Building
Emergency Air Storage Tank 14	VES-MT-14	Auxiliary Building
Emergency Air Storage Tank 15	VES-MT-15	Auxiliary Building
Emergency Air Storage Tank 16	VES-MT-16	Auxiliary Building

Table 2.3.1-1			
Equipment Name	**Tag No.**	**Display**	**Control Function**
CCS Heat Exchanger Inlet Temperature Sensor	CCS-121	Yes	-
CCS Heat Exchanger Outlet Temperature Sensor	CCS-122	Yes	-
CCS Flow to Reactor Coolant Pump (RCP) 1A Valve (Position Indicator)	CCS-PL-V256A	Yes	-
CCS Flow to RCP 1B Valve (Position Indicator)	CCS-PL-V256B	Yes	-
CCS Flow to RCP 2A Valve (Position Indicator)	CCS-PL-V256C	Yes	-
CCS Flow to RCP 2B Valve (Position Indicator)	CCS-PL-V256D	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.1-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
278	2.3.01.01	1. The functional arrangement of the CCS is as described in the Design Description of this Section 2.3.1.	Inspection of the as-built system will be performed.	The as-built CCS conforms with the functional arrangement described in the Design Description of this Section 2.3.1.
279	2.3.01.02	Not used per Amendment No. 84		
280	2.3.01.03.i	3. The CCS provides the nonsafety-related functions of transferring heat from the RNS during shutdown and the spent fuel pool cooling system during all modes of operation to the SWS.	i) Inspection will be performed for the existence of a report that determines the heat transfer capability of the CCS heat exchangers.	i) A report exists and concludes that the UA of each CCS heat exchanger is greater than or equal to 14.0 million Btu/hr-°F.

Table 2.3.1-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
281	2.3.01.03.ii	3. The CCS provides the nonsafety-related functions of transferring heat from the RNS during shutdown and the spent fuel pool cooling system during all modes of operation to the SWS.	ii) Testing will be performed to confirm that the CCS can provide cooling water to the RNS HXs while providing cooling water to the SFS HXs.	ii) Each pump of the CCS can provide at least 2685 gpm of cooling water to one RNS HX and at least 1200 gpm of cooling water to one SFS HX while providing at least 4415 gpm to other users of cooling water.
		4. Controls exist in the MCR to cause the pumps identified in Table 2.3.1-1 to perform the listed functions.	Testing will be performed to actuate the pumps identified in Table 2.3.1-1 using controls in the MCR.	Controls in the MCR operate to cause pumps listed in Table 2.3.1-1 to perform the listed functions.
		5. Displays of the parameters identified in Table 2.3.1-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	Displays identified in Table 2.3.1-1 can be retrieved in the MCR.

Table 2.3.1-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
282	2.3.01.04	Not used per Amendment No. 112		
283	2.3.01.05	Not used per Amendment No. 112		

Table 2.3.1-3		
Component Name	**Tag No.**	**Component Location**
CCS Pump A	CCS-MP-01A	Turbine Building
CCS Pump B	CCS-MP-01B	Turbine Building
CCS Heat Exchanger A	CCS-ME-01A	Turbine Building
CCS Heat Exchanger B	CCS-ME-01B	Turbine Building

Table 2.3.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
296	2.3.02.06b	6.b) The Class 1E components identified in Table 2.3.2-1 are powered from their respective Class 1E division.	Testing will be performed on the CVS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.3.2-1 when the assigned Class 1E division is provided the test signal.
297	2.3.02.06c	Not used per Amendment No. 84		
298	2.3.02.07a	Not used per Amendment No. 84		
299	2.3.02.07b	Not used per Amendment No. 84		
300	2.3.02.07c	Not used per Amendment No. 84		
301	2.3.02.08a.i	8.a) The CVS provides makeup water to the RCS. 8.b) The CVS provides the pressurizer auxiliary spray. 9. Safety-related displays identified in Table 2.3.2-1 can be retrieved in the MCR. 10.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.3.2-1 to perform active functions. 10.b) The valves identified in Table 2.3.2-1 as having PMS control perform an active safety function after receiving a signal from the PMS.	i) Testing will be performed by aligning a flow path from each CVS makeup pump, actuating makeup flow to the RCS at pressure greater than or equal to 2000 psia, and measuring the flow rate in the makeup pump discharge line with each pump suction aligned to the boric acid storage tank. Testing will be performed by aligning a flow path from each CVS makeup pump to the pressurizer auxiliary spray and measuring the flow rate in the makeup pump discharge line with each pump suction aligned to the boric acid storage tank and with RCS pressure greater than or equal to 2000 psia. Inspection will be performed for retrievability of the safety-related displays in the MCR. Stroke testing will be performed on the remotely operated valves identified in Table 2.3.2-1 using the controls in the MCR. i) Testing will be performed using real or simulated signals into the PMS.	i) Each CVS makeup pump provides a flow rate of greater than or equal to 100 gpm. Each CVS makeup pump provides spray flow to the pressurizer. Safety-related displays identified in Table 2.3.2-1 can be retrieved in the MCR. Controls in the MCR operate to cause the remotely operated valves identified in Table 2.3.2-1 to perform active functions. i) The valves identified in Table 2.3.2-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.

Table 2.3.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			ii) Testing will be performed to demonstrate that the remotely operated CVS isolation valves CVS-V090, V091, V136A/B close within the required response time.	ii) These valves close within the following times after receipt of an actuation signal: V090, V091 < 30 sec V136A/B < 20 sec
		11.a) The motor-operated and check valves identified in Table 2.3.2-1 perform an active safety-related function to change position as indicated in the table.	iii) Tests of the motor-operated valves will be performed under pre-operational flow, differential pressure, and temperature conditions.	iii) Each motor-operated valve changes position as indicated in Table 2.3.2-1 under pre-operational test conditions.
			iv) Exercise testing of the check valves with active safety functions identified in Table 2.3.2-1 will be performed under pre-operational test pressure, temperature and fluid flow conditions.	iv) Each check valve changes position as indicated in Table 2.3.2-1.
		11.b) After loss of motive power, the remotely operated valves identified in Table 2.3.2-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	Upon loss of motive power, each remotely operated valve identified in Table 2.3.2-1 assumes the indicated loss of motive power position.
		12.a) Controls exist in the MCR to cause the pumps identified in Table 2.3.2-3 to perform the listed function.	Testing will be performed to actuate the pumps identified in Table 2.3.2-3 using controls in the MCR.	Controls in the MCR cause pumps identified in Table 2.3.2-3 to perform the listed function.
		12.b) The pumps identified in Table 2.3.2-3 start after receiving a signal from the PLS.	Testing will be performed to confirm starting of the pumps identified in Table 2.3.2-3.	The pumps identified in Table 2.3.2-3 start after a signal is generated by the PLS.
		13. Displays of the parameters identified in Table 2.3.2-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.3.2-3 in the MCR.	Displays identified in Table 2.3.2-3 can be retrieved in the MCR.
302	2.3.02.08a.ii	8.a) The CVS provides makeup water to the RCS.	ii) Inspection of the boric acid storage tank volume will be performed.	ii) The volume in the boric acid storage tank is at least 70,000 gallons between the tank suction point and the tank overflow.
303	2.3.02.08a.iii	8.a) The CVS provides makeup water to the RCS.	iii) Testing will be performed to measure the delivery rate from the DWS to the RCS. Both CVS makeup pumps will be operating and the RCS pressure will be below 6 psig.	iii) The total CVS makeup flow to the RCS is less than or equal to 175 gpm.

Table 2.3.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
304	2.3.02.08b	Not used per Amendment No. 112		
305	2.3.02.09	Not used per Amendment No. 112		
306	2.3.02.10a	Not used per Amendment No. 112		
307	2.3.02.10b.i	Not used per Amendment No. 112		
308	2.3.02.10b.ii	Not used per Amendment No. 112		
309	2.3.02.11a.i	11.a) The motor-operated and check valves identified in Table 2.3.2-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions. ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tested conditions.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.3.2-1 under design conditions. ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tests or type tests.
310	2.3.02.11a.ii	Not used per Amendment No. 84		

Table 2.3.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
311	2.3.02.11a.iii	Not used per Amendment No. 112		
312	2.3.02.11a.iv	Not used per Amendment No. 112		
313	2.3.02.11b	Not used per Amendment No. 112		
314	2.3.02.12a	Not used per Amendment No. 112		
315	2.3.02.12b	Not used per Amendment No. 112		
316	2.3.02.13	Not used per Amendment No. 112		
317	2.3.02.14	14. The nonsafety-related piping located inside containment and designated as reactor coolant pressure boundary, as identified in Table 2.3.2-2, has been designed to withstand a seismic design basis event and maintain structural integrity.	Inspection will be conducted of the as-built components as documented in the CVS Seismic Analysis Report.	The CVS Seismic Analysis Reports exist for the non-safety related piping located inside containment and designated as reactor coolant pressure boundary as identified in Table 2.3.2-2.

Table 2.3.3-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
318	2.3.03.01	1. The functional arrangement of the DOS is as described in the Design Description of this Section 2.3.3.	Inspection of the as-built system will be performed.	The as-built DOS conforms with the functional arrangement described in the Design Description of this Section 2.3.3.
319	2.3.03.02	2. The ancillary diesel generator fuel tank can withstand a seismic event.	Inspection will be performed for the existence of a report verifying that the as-built ancillary diesel generator fuel tank and its anchorage are designed using seismic Category II methods and criteria.	A report exists and concludes that the as-built ancillary diesel generator fuel tank and its anchorage are designed using seismic Category II methods and criteria.
320	2.3.03.03a	3.a) Each fuel oil storage tank provides for at least 7 days of continuous operation of the associated standby diesel generator.	Inspection of each fuel oil storage tank will be performed.	The volume of each fuel oil storage tank available to the standby diesel generator is greater than or equal to 55,000 gallons.
321	2.3.03.03b	3.b) Each fuel oil storage day tank provides for at least 4 hours of operation of the associated standby diesel generator.	Inspection of the fuel oil day tank will be performed.	The volume of each fuel oil day tank is greater than or equal to 1300 gallons.
322	2.3.03.03c	3.c) The fuel oil flow rate to the day tank of each standby diesel generator provides for continuous operation of the associated diesel generator.	Testing will be performed to determine the flow rate.	The flow rate delivered to each day tank is 8 gpm or greater.
323	2.3.03.03d	3.d) The ancillary diesel generator fuel tank is sized to supply power to long-term safety-related post accident monitoring loads and control room lighting through a regulating transformer and one PCS recirculation pump for four days.	Inspection of the ancillary diesel generator fuel tank will be performed.	The volume of the ancillary diesel generator fuel tank is greater than or equal to 650 gallons.
324	2.3.03.04	4. Controls exist in the MCR to cause the components identified in Table 2.3.3-1 to perform the listed function. 5. Displays of the parameters identified in Table 2.3.3-1 can be retrieved in the MCR.	Testing will be performed on the components in Table 2.3.3-1 using controls in the MCR. Inspection will be performed for retrievability of parameters in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.3.3-1 to perform the listed functions. The displays identified in Table 2.3.3-1 can be retrieved in the MCR.
325	2.3.03.05	Not used per Amendment No. 112		

Table 2.3.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
326	2.3.04.01	1. The functional arrangement of the FPS is as described in the Design Description of this Section 2.3.4.	Inspection of the as-built system will be performed.	The as-built FPS conforms with the functional arrangement described in the Design Description of this Section 2.3.4.
327	2.3.04.02.i	2. The FPS piping shown on Figure 2.3.4-2 remains functional following a safe shutdown earthquake.	i) Inspection will be performed to verify that the piping shown on Figure 2.3.4-2 is located on the Nuclear Island.	i) The piping shown on Figure 2.3.4-2 is located on the Nuclear Island.
328	2.3.04.02.ii	2. The FPS piping shown on Figure 2.3.4-2 remains functional following a safe shutdown earthquake.	ii) A reconciliation analysis using the as-designed and as-built piping information will be performed, or an analysis of the as-built piping will be performed.	ii) The as-built piping stress report exists and concludes that the piping remains functional following a safe shutdown earthquake.
329	2.3.04.03	Not used per Amendment No. 84		
330	2.3.04.04.i	4. The FPS provides for manual fire fighting capability in plant areas containing safety-related equipment. 6. The FPS provides nonsafety-related containment spray for severe accident management. 7. The FPS provides two fire water storage tanks, each capable of holding at least 100 percent of the water supply necessary for FPS use.	i) Inspection of the passive containment cooling system (PCS) storage tank will be performed. Inspection of the containment spray headers will be performed. Inspection of each fire water storage tank will be performed.	i) The volume of the PCS tank above the standpipe feeding the FPS and below the overflow is at least 18,000 gal. The FPS has spray headers and nozzles as follows: At least 44 nozzles at plant elevation of at least 260 feet, and 24 nozzles at plant elevation of at least 275 feet. The volume of water dedicated to FPS use provided in each fire water storage tank is at least 396,000 gallons.
331	2.3.04.04.ii	4. The FPS provides for manual fire fighting capability in plant areas containing safety-related equipment.	ii) Testing will be performed by measuring the water flow rate as it is simultaneously discharged from the two highest fire-hose stations and when the water for the fire is supplied from the PCS storage tank.	ii) Water is simultaneously discharged from each of the two highest fire-hose stations in plant areas containing safety-related equipment at not less than 75 gpm.
332	2.3.04.05	5. Displays of the parameters identified in Table 2.3.4-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.3.4-1 can be retrieved in the MCR.
333	2.3.04.06	Not used per Amendment No. 112		
334	2.3.04.07	Not used per Amendment No. 112		

Table 2.3.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
339	2.3.05.01	1. The functional arrangement of the MHS is as described in the Design Description of this Section 2.3.5.	Inspection of the as-built system will be performed.	The as-built MHS conforms with the functional arrangement as described in the Design Description of this Section 2.3.5.
340	2.3.05.02.i	2. The seismic Category I equipment identified in Table 2.3.5-1 can withstand seismic design basis loads without loss of safety function.	i) Inspection will be performed to verify that the seismic Category I equipment identified in Table 2.3.5-1 is located on the Nuclear Island. ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed. iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.	i) The seismic Category I equipment identified in Table 2.3.5-1 is located on the Nuclear Island. ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function. iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.
341	2.3.05.02.ii	Not used per Amendment No. 84		
342	2.3.05.02.iii	Not used per Amendment No. 84		
343	2.3.05.03a.i	3.a) The polar crane is single failure proof.	i) Validation of double design factors is provided for hooks where used as load bearing components. Validation of redundant factors is provided for load bearing components such as: • Hoisting ropes • Sheaves • Equalizer assembly • Holding brakes	i) A report exists and concludes that the polar crane is single failure proof. A certificate of conformance from the vendor exists and concludes that the polar crane is single failure proof.
344	2.3.05.03a.ii	3.a) The polar crane is single failure proof.	ii) Testing of the polar crane is performed. iii) Testing of the polar crane is performed.	ii) The polar crane shall be static-load tested to 125% of the rated load. iii) The polar crane shall lift a test load that is 100% of the rated load. Then it shall lower, stop, and hold the test load.
345	2.3.05.03a.iii	Not used per Amendment No. 112		

Table 2.3.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
346	2.3.05.03b.i	3.b) The cask handling crane is single failure proof.	i) Validation of double design factors is provided for hooks where used as load bearing components. Validation of redundant factors is provided for load bearing components such as: • Hoisting ropes • Sheaves • Equalizer assembly • Holding brakes	i) A report exists and concludes that the cask handling crane is single failure proof. A certificate of conformance from the vendor exists and concludes that the cask handling crane is single failure proof.
347	2.3.05.03b.ii	Not used per Amendment No. 112		
348	2.3.05.03b.iii	3.b) The cask handling crane is single failure proof. 4. The cask handling crane cannot move over the spent fuel pool.	ii) Testing of the cask handling crane is performed. iii) Testing of the cask handling crane is performed. Testing of the cask handling crane is performed.	ii) The cask handling crane shall be static load tested to 125% of the rated load. iii) The cask handling crane shall lift a test load that is 100% of the rated load. Then it shall lower, stop, and hold the test load. The cask handling crane does not move over the spent fuel pool.
349	2.3.05.03c.i	3.c) The equipment hatch hoist is single failure proof.	i) Validation of double design factors is provided for hooks where used as load bearing components. Validation of redundant factors is provided for load bearing components such as: • Hoisting ropes • Sheaves • Equalizer assembly • Holding brakes	i) A report exists and concludes that the equipment hatch hoist is single failure proof. A certificate of conformance from the vendor exists and concludes that the equipment hatch hoist is single failure proof.
350	2.3.05.03c.ii	3.c) The equipment hatch hoist is single failure proof.	ii) Testing of the equipment hatch hoist is performed.	ii) The equipment hatch hoist holding mechanism shall stop and hold the hatch.

Table 2.3.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
351	2.3.05.03d.i	3.d) The maintenance hatch hoist is single failure proof.	i) Validation of double design factors is provided for hooks where used as load bearing components. Validation of redundant factors is provided for load bearing components such as: • Hoisting ropes • Sheaves • Equalizer assembly • Holding brakes	i) A report exists and concludes that the maintenance hatch hoist is single failure proof. A certificate of conformance from the vendor exists and concludes that the maintenance hatch hoist is single failure proof.

Table 2.3.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
352	2.3.05.03d.ii	3.d) The maintenance hatch hoist is single failure proof.	ii) Testing of the maintenance hatch hoist is performed.	ii) The maintenance hatch hoist holding mechanism shall stop and hold the hatch.
353	2.3.05.04	Not used per Amendment No. 112		

Table 2.3.5-3		
Component Name	**Tag No.**	**Component Location**
Containment Polar Crane	MHS-MH-01	Containment
Cask Handling Crane	MHS-MH-02	Auxiliary Building
Equipment Hatch Hoist	MHS-MH-05	Containment
Maintenance Hatch Hoist	MHS-MH-06	Containment

2.3.6 Normal Residual Heat Removal System

Design Description

The normal residual heat removal system (RNS) removes heat from the core and reactor coolant system (RCS) and provides RCS low temperature over-pressure (LTOP) protection at reduced RCS pressure and temperature conditions after shutdown. The RNS also provides a means for cooling the in-containment refueling water storage tank (IRWST) during normal plant operation.

The RNS is as shown in Figure 2.3.6-1 and the RNS component locations are as shown in Table 2.3.6-5.

1. The functional arrangement of the RNS is as described in the Design Description of this Section 2.3.6.
2. a) The components identified in Table 2.3.6-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.
   b) The piping identified in Table 2.3.6-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.
3. a) Pressure boundary welds in components identified in Table 2.3.6-1 as ASME Code Section III meet ASME Code Section III requirements.
   b) Pressure boundary welds in piping identified in Table 2.3.6-2 as ASME Code Section III meet ASME Code Section III requirements.

Table 2.3.6-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
375	2.3.06.09b.ii	9.b) The RNS provides heat removal from the reactor coolant during shutdown operations.	ii) Testing will be performed to confirm that the RNS can provide flow through the RNS heat exchangers when the pump suction is aligned to the RCS hot leg and the discharge is aligned to both PXS DVI lines with the RCS at atmospheric pressure.	ii) Each RNS pump provides at least 1400 gpm net flow to the RCS when the hot leg water level is at an elevation 15.5 inches ± 2 inches above the bottom of the hot leg.
			iii) Inspection will be performed of the reactor coolant loop piping.	iii) The RCS cold legs piping centerline is 17.5 inches ± 2 inches above the hot legs piping centerline.
			iv) Inspection will be performed of the RNS pump suction piping.	iv) The RNS pump suction piping from the hot leg to the pump suction piping low point does not form a local high point (defined as an upward slope with a vertical rise greater than 3 inches).
			v) Inspection will be performed of the RNS pump suction nozzle connection to the RCS hot leg.	v) The RNS suction line connection to the RCS is constructed from 20-inch Schedule 140 pipe.
		9.c) The RNS provides low pressure makeup flow from the cask loading pit to the RCS for scenarios following actuation of the ADS.	Testing will be performed to confirm that the RNS can provide low pressure makeup flow from the cask loading pit to the RCS when the pump suction is aligned to the cask loading pit and the discharge is aligned to both PXS DVI lines with RCS at atmospheric pressure.	Each RNS pump provides at least 1100 gpm net flow to the RCS when the water level above the bottom of the cask loading pit is 1 foot ± 6 inches.
		9.d) The RNS provides heat removal from the in-containment refueling water storage tank (IRWST).	Testing will be performed to confirm that the RNS can provide flow through the RNS heat exchangers when the pump suction is aligned to the IRWST and the discharge is aligned to the IRWST.	Two operating RNS pumps provide at least 2000 gpm to the IRWST.
		12.a) The motor-operated and check valves identified in Table 2.3.6-1 perform an active safety-related function to change position as indicated in the table.	iii) Tests of the motor-operated valves will be performed under preoperational flow, differential pressure and temperature conditions.	iii) Each motor-operated valve changes position as indicated in Table 2.3.6-1 under preoperational test conditions.

Table 2.3.6-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
			iv) Exercise testing of the check valves active safety functions identified in Table 2.3.6-1 will be performed under preoperational test pressure, temperature and fluid flow conditions.	iv) Each check valve changes position as indicated in Table 2.3.6-1.
376	2.3.06.09b.iii	Not used per Amendment No. 112		
377	2.3.06.09b.iv	Not used per Amendment No. 112		
378	2.3.06.09b.v	Not used per Amendment No. 112		
379	2.3.06.09c	Not used per Amendment No. 112		
380	2.3.06.09d	Not used per Amendment No. 112		
381	2.3.06.10	Not used per Amendment No. 112		

Table 2.3.6-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
382	2.3.06.11a	10. Safety-related displays identified in Table 2.3.6-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.3.6-1 can be retrieved in the MCR.
		11.a) Controls exist in the MCR to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.	Stroke testing will be performed on the remotely operated valves identified in Table 2.3.6-1 using the controls in the MCR.	Controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.6-1 to perform active functions.
		11.b) The valves identified in Table 2.3.6-1 as having PMS control perform active safety functions after receiving a signal from the PMS.	Testing will be performed using real or simulated signals into the PMS.	The valves identified in Table 2.3.6-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS.
		12.b) After loss of motive power, the remotely operated valves identified in Table 2.3.6-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	Upon loss of motive power, each remotely operated valve identified in Table 2.3.6-1 assumes the indicated loss of motive power position.
		13. Controls exist in the MCR to cause the pumps identified in Table 2.3.6-3 to perform the listed function.	Testing will be performed to actuate the pumps identified in Table 2.3.6-3 using controls in the MCR.	Controls in the MCR cause pumps identified in Table 2.3.6-3 to perform the listed action.
		14. Displays of the RNS parameters identified in Table 2.3.6-3 can be retrieved in the MCR.	Inspection will be performed for retrievability in the MCR of the displays identified in Table 2.3.6-3.	Displays of the RNS parameters identified in Table 2.3.6-3 are retrieved in the MCR.
383	2.3.06.11b	Not used per Amendment No. 112		
384	2.3.06.12a.i	12.a) The motor-operated and check valves identified in Table 2.3.6-1 perform an active safety-related function to change position as indicated in the table.	i) Tests or type tests of motor-operated valves will be performed that demonstrate the capability of the valve to operate under its design conditions.	i) A test report exists and concludes that each motor-operated valve changes position as indicated in Table 2.3.6-1 under design conditions.
			ii) Inspection will be performed for the existence of a report verifying that the as-built motor-operated valves are bounded by the tested conditions.	ii) A report exists and concludes that the as-built motor-operated valves are bounded by the tested conditions.
385	2.3.06.12a.ii	Not used per Amendment No. 84		

Table 2.3.6-4
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
386	2.3.06.12a.iii	Not used per Amendment No. 112		
387	2.3.06.12a.iv	Not used per Amendment No. 112		
388	2.3.06.12b	Not used per Amendment No. 112		
389	2.3.06.13	Not used per Amendment No. 112		
390	2.3.06.14	Not used per Amendment No. 112		

Table 2.3.7-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
406	2.3.07.07b.v	Not used per Amendment No. 84		
407	2.3.07.07b.vi	Not used per Amendment No. 84		
408	2.3.07.07c	7c) The SFS provides check valves in the drain line from the refueling cavity to prevent flooding of the refueling cavity during containment flooding. 8. The SFS provides the nonsafety-related function of removing spent fuel decay heat using pumped flow through a heat exchanger. 9. Safety-related displays identified in Table 2.3.7-1 can be retrieved in the MCR. 10. Controls exist in the MCR to cause the pumps identified in Table 2.3.7-3 to perform their listed functions. 11. Displays of the SFS parameters identified in Table 2.3.7-3 can be retrieved in the MCR.	Exercise testing of the check valves with active safety-functions identified in Table 2.3.7-1 will be performed under pre-operational test pressure, temperature and flow conditions. ii) Testing will be performed to confirm that each SFS pump provides flow through its heat exchanger when taking suction from the SFP and returning flow to the SFP. Inspection will be performed for retrievability of the safety-related displays in the MCR. Testing will be performed to actuate the pumps identified in Table 2.3.7-3 using controls in the MCR. Inspection will be performed for retrievability in the MCR of the displays identified in Table 2.3.7-3.	Each check valve changes position as indicated on Table 2.3.7-1. ii) Each SFS pump produces at least 900 gpm through its heat exchanger. Safety-related displays identified in Table 2.3.7-1 can be retrieved in the MCR. Controls in the MCR cause pumps identified in Table 2.3.7-3 to perform the listed functions. Displays of the SFS parameters identified in Table 2.3.7-3 are retrieved in the MCR.
409	2.3.07.08.i	8. The SFS provides the nonsafety-related function of removing spent fuel decay heat using pumped flow through a heat exchanger.	i) Inspection will be performed for the existence of a report that determines the heat removal capability of the SFS heat exchangers.	i) A report exists and concludes that the heat transfer characteristic, UA, of each SFS heat exchanger is greater than or equal to 2.2 million Btu/hr-°F.
410	2.3.07.08.ii	Not used per Amendment No. 112		
411	2.3.07.09	Not used per Amendment No. 112		
412	2.3.07.10	Not used per Amendment No. 112		
413	2.3.07.11	Not used per Amendment No. 112		

Table 2.3.8-1			
Equipment Name	**Tag No.**	**Display**	**Control Function**
Service Water Pump A Discharge Temperature Sensor	SWS-005A	Yes	-
Service Water Pump B Discharge Temperature Sensor	SWS-005B	Yes	-
Service Water Cooling Tower Basin Level	SWS-009	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.8-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
414	2.3.08.01	1. The functional arrangement of the SWS is as described in the Design Description of this Section 2.3.8.	Inspection of the as-built system will be performed.	The as-built SWS conforms with the functional arrangement as described in the Design Description of this Section 2.3.8.
415	2.3.08.02.i	2. The SWS provides the nonsafety-related function of transferring heat from the component cooling water system to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling.	i) Testing will be performed to confirm that the SWS can provide cooling water to the CCS heat exchangers.	i) Each SWS pump can provide at least 10,000 gpm of cooling water through its CCS heat exchanger.
		3. Controls exist in the MCR to cause the components identified in Table 2.3.8-1 to perform the listed function.	Testing will be performed on the components in Table 2.3.8-1 using controls in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.3.8-1 to perform the listed functions.
		4. Displays of the parameters identified in Table 2.3.8-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of parameters in the MCR.	The displays identified in Table 2.3.8-1 can be retrieved in the MCR.
416	2.3.08.02.ii	2. The SWS provides the nonsafety-related function of transferring heat from the component cooling water system to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling.	ii) Inspection will be performed for the existence of a report that determines the heat transfer capability of each cooling tower cell.	ii) A report exists and concludes that the heat transfer rate of each cooling tower cell is greater than or equal to 170 million Btu/hr at a 80.1°F ambient wet bulb temperature and a cold water temperature of 90°F.
417	2.3.08.02.iii	2. The SWS provides the nonsafety-related function of transferring heat from the component cooling water system to the surrounding atmosphere to support plant shutdown and spent fuel pool cooling.	iii) Testing will be performed to confirm that the SWS cooling tower basin has adequate reserve volume.	iii) The SWS tower basin contains a usable volume of at least 230,000 gallons at the basin low level alarm setpoint.

Table 2.3.8-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
418	2.3.08.03	Not used per Amendment No. 112		
419	2.3.08.04	Not used per Amendment No. 112		

Table 2.3.8-3		
Component Name	**Tag No.**	**Component Location**
Service Water Pump A	SWS-MP-01A	Turbine Building or yard
Service Water Pump B	SWS-MP-01B	Turbine Building or yard
Service Water Cooling Tower	SWS-ME-01	Yard

Table 2.3.9-2					
Equipment Name	**Tag Number**	**Function**	**Power Group Number**	**Location**	**Room No.**
Hydrogen Igniter 55	VLS-EH-55	Energize	1	Refueling cavity	11504
Hydrogen Igniter 56	VLS-EH-56	Energize	2	Refueling cavity	11504
Hydrogen Igniter 57	VLS-EH-57	Energize	2	Refueling cavity	11504
Hydrogen Igniter 58	VLS-EH-58	Energize	1	Refueling cavity	11504
Hydrogen Igniter 59	VLS-EH-59	Energize	2	Pressurizer compartment	11503
Hydrogen Igniter 60	VLS-EH-60	Energize	1	Pressurizer compartment	11503
Hydrogen Igniter 61	VLS-EH-61	Energize	1	Upper compartment-upper region	11500
Hydrogen Igniter 62	VLS-EH-62	Energize	2	Upper compartment-upper region	11500
Hydrogen Igniter 63	VLS-EH-63	Energize	1	Upper compartment-upper region	11500
Hydrogen Igniter 64	VLS-EH-64	Energize	2	Upper compartment-upper region	11500
Hydrogen Igniter 65	VLS-EH-65	Energize	1	IRWST roof vents	11500
Hydrogen Igniter 66	VLS-EH-66	Energize	2	IRWST roof vents	11500

Table 2.3.9-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
420	2.3.09.01	1. The functional arrangement of the VLS is as described in the Design Description of this Section 2.3.9.	Inspection of the as-built system will be performed.	The as-built VLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.9.
421	2.3.09.02a	2.a) The hydrogen monitors identified in Table 2.3.9-1 are powered by the non-Class 1E dc and UPS system.	Testing will be performed by providing a simulated test signal in each power group of the non-Class 1E dc and UPS system.	A simulated test signal exists at the hydrogen monitors identified in Table 2.3.9-1 when the non-Class 1E dc and UPS system is provided the test signal.
422	2.3.09.02b	2.b) The components identified in Table 2.3.9-2 are powered from their respective non-Class 1E power group.	Testing will be performed by providing a simulated test signal in each non-Class 1E power group.	A simulated test signal exists at the equipment identified in Table 2.3.9-2 when the assigned non-Class 1E power group is provided the test signal.
423	2.3.09.03.i	Not used per Amendment No. 112		

Table 2.3.9-3
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
424	2.3.09.03.ii	3. The VLS provides the nonsafety-related function to control the containment hydrogen concentration for beyond design basis accidents.	i) Inspection for the number of igniters will be performed.	i) At least 66 hydrogen igniters are provided inside containment at the locations specified in Table 2.3.9-2.
			ii) Operability testing will be performed on the igniters.	ii) The surface temperature of the igniter meets or exceeds 1700°F.
		4.a) Controls exist in the MCR to cause the components identified in Table 2.3.9-2 to perform the listed function.	Testing will be performed on the igniters using the controls in the MCR.	Controls in the MCR operate to energize the igniters
		5. Displays of the parameters identified in Table 2.3.9-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.3.9-1 in the MCR.	Displays identified in Table 2.3.9-1 can be retrieved in the MCR.
425	2.3.09.03.iii	3. The VLS provides the nonsafety-related function to control the containment hydrogen concentration for beyond design basis accidents.	iii) An inspection of the as-built containment internal structures will be performed.	iii) The equipment access opening and CMT-A opening constitute at least 98% of the vent path area from Room 11206 to Room 11300. The minimum distance between the equipment access opening and the containment shell is at least 24.3 feet. The minimum distance between the CMT-A opening and the containment shell is at least 9.4 feet. The CMT-B opening constitutes at least 98% of the vent path area from Room 11207 to Room 11300 and is a minimum distance of 24.6 feet away from the containment shell. Other openings through the ceilings of these rooms must be at least 3 feet from the containment shell.
426	2.3.09.03.iv	3. The VLS provides the nonsafety-related function to control the containment hydrogen concentration for beyond design basis accidents.	iv) An inspection will be performed of the as-built IRWST vents that are located in the roof of the IRWST along the side of the IRWST next to the containment shell.	iv) The discharge from each of these IRWST vents is oriented generally away from the containment shell.

Table 2.3.9-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
427	2.3.09.04a	Not used per Amendment No. 112		
428	2.3.09.04b	4.b) The components identified in Table 2.3.9-2 perform the listed function after receiving manual a signal from DAS.	Testing will be performed on the igniters using the DAS controls.	The igniters energize after receiving a signal from DAS.
429	2.3.09.05	Not used per Amendment No. 112		

2.3.10 Liquid Radwaste System

Design Description

The liquid radwaste system (WLS) receives, stores, processes, samples and monitors the discharge of radioactive wastewater.

Table 2.3.10-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
440	2.3.10.05b	Not used per Amendment No. 85		
441	2.3.10.06a	Not used per Amendment No. 85		
442	2.3.10.06b	Not used per Amendment No. 85		
443	2.3.10.07a.i	Not used per Amendment No. 112		
444	2.3.10.07a.ii	7.a) The WLS provides the nonsafety-related function of detecting leaks within containment to the containment sump.	i) Inspection will be performed for retrievability of the displays of containment sump level channels WLS-034, WLS-035, and WLS-036 in the MCR.	i) Nonsafety-related displays of WLS containment sump level channels WLS-034, WLS-035, and WLS-036 can be retrieved in the MCR.
			ii) Testing will be performed by adding water to the sump and observing display of sump level.	ii) A report exists and concludes that sump level channels WLS-034, WLS-035, and WLS-036 can detect a change of 1.75 ± 0.1 inches.
		7.b) The WLS provides the nonsafety-related function of controlling releases of radioactive materials in liquid effluents.	Tests will be performed to confirm that a simulated high radiation signal from the discharge radiation monitor, WLS-RE-229, causes the discharge isolation valve WLS-PL-V223 to close.	A simulated high radiation signal causes the discharge control isolation valve WLS-PL-V223 to close.
		8. Controls exist in the MCR to cause the remotely operated valve identified in Table 2.3.10-3 to perform its active function.	Stroke testing will be performed on the remotely operated valve listed in Table 2.3.10-3 using controls in the MCR.	Controls in the MCR operate to cause the remotely operated valve to perform its active function.
		9. The check valves identified in Table 2.3.10-1 perform an active safety-related function to change position as indicated in the table.	Exercise testing of the check valves with active safety functions identified in Table 2.3.10-1 will be performed under pre-operational test pressure, temperature and flow conditions.	Each check valve changes position as indicated on Table 2.3.10-1.
		10. Displays of the parameters identified in Table 2.3.10-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.3.10-3 in the MCR.	Displays identified in Table 2.3.10-3 can be retrieved in the MCR.
445	2.3.10.07b	Not used per Amendment No. 112		
446	2.3.10.08	Not used per Amendment No. 112		
447	2.3.10.09	Not used per Amendment No. 112		

Table 2.3.10-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
448	2.3.10.10	Not used per Amendment No. 112		
878	2.3.10.11a	11. a) The Class 1E components identified in Table 2.3.10-1 are powered from their respective Class 1E division.	Testing will be performed on the WLS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E components identified in Table 2.3.10-1 when the assigned Class 1E division is provided the test signal.
879	2.3.10.12	12. Safety-related displays identified in Table 2.3.10-1 can be retrieved in the main control room (MCR).	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.3.10-1 can be retrieved in the MCR.

Table 2.3.10-5		
Component Name	**Tag No.**	**Component Location**
WLS Reactor Coolant Drain Tank	WLS-MT-01	Containment
WLS Containment Sump	WLS-MT-02	Containment
WLS Degasifier Column	WLS-MV-01	Auxiliary Building
WLS Effluent Holdup Tanks	WLS-MT-05A WLS-MT-05B	Auxiliary Building
WLS Waste Holdup Tanks	WLS-MT-06A WLS-MT-06B	Auxiliary Building
WLS Waste Pre-Filter	WLS-MV-06	Auxiliary Building
WLS Ion Exchangers	WLS-MV-03 WLS-MV-04A WLS-MV-04B WLS-MV-04C	Auxiliary Building
WLS Waste After-Filter	WLS-MV-07	Auxiliary Building
WLS Monitor Tanks	WLS-MT-07A WLS-MT-07B WLS-MT-07C	Auxiliary Building
	WLS-MT-07D WLS-MT-07E WLS-MT-07F	Radwaste Building

Table 2.3.13-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
470	2.3.13.08	8. The PSS provides the nonsafety-related function of providing the capability of obtaining reactor coolant and containment atmosphere samples. 9. Safety-related displays identified in Table 2.3.13-1 can be retrieved in the MCR. 10.a) Controls exist in the MCR to cause those remotely operated valves identified in Table 2.3.13-1 to perform active functions. 10.b) The valves identified in Table 2.3.13-1 as having PMS control perform an active function after receiving a signal from the PMS. 11.b) After loss of motive power, the remotely operated valves identified in Table 2.3.13-1 assume the indicated loss of motive power position. 12. Controls exist in the MCR to cause the valves identified in Table 2.3.13-2 to perform the listed function.	Testing will be performed to obtain samples of the reactor coolant and containment atmosphere. Inspection will be performed for retrievability of the safety-related displays in the MCR. Stroke testing will be performed on the remotely operated valves identified in Table 2.3.13-1 using the controls in the MCR. Testing will be performed on remotely operated valves listed in Table 2.3.13-1 using real or simulated signals into the PMS. Testing of the remotely operated valves will be performed under the conditions of loss of motive power. Testing will be performed on the components in Table 2.3.13-2 using controls in the MCR.	A sample is drawn from the reactor coolant and the containment atmosphere. The safety-related displays identified in Table 2.3.13-1 can be retrieved in the MCR. Controls in the MCR operate to cause those remotely operated valves identified in Table 2.3.13-1 to perform active functions. The remotely operated valves identified in Table 2.3.13-1 as having PMS control perform the active function identified in the table after receiving a signal from the PMS. After loss of motive power, each remotely operated valve identified in Table 2.3.13-1 assumes the indicated loss of motive power position. Controls in the MCR cause valves identified in Table 2.3.13-2 to perform the listed functions.
471	2.3.13.09	Not used per Amendment No. 112		
472	2.3.13.10a	Not used per Amendment No. 112		
473	2.3.13.10b	Not used per Amendment No. 112		
474	2.3.13.11a	11.a) Deleted.		
475	2.3.13.11b	Not used per Amendment No. 112		
476	2.3.13.12	Not used per Amendment No. 112		

Table 2.3.19-1	
Telephone/Page System Equipment	**Location**
Fuel Handling Area	12562
Division A, B, C, D dc Equipment Rooms	12201/12203/12205/12207
Division A, B, C, D I&C Rooms	12301/12302/12304/12305
Maintenance Floor Staging Area	12351
Containment Maintenance Floor	11300
Containment Operating Deck	11500

Table 2.3.19-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
484	2.3.19.01a	Not used per Amendment No. 112		
485	2.3.19.01b	Not used per Amendment No. 112		
486	2.3.19.02a	1.a) The EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system.	Inspection of the as-built system will be performed.	The as-built EFS has handsets, amplifiers, loudspeakers, and siren tone generators connected as a telephone/page system.
		1.b) The EFS has sound-powered equipment connected as a system.	Inspection of the as-built system will be performed.	The as-built EFS has sound-powered equipment connected as a system.
		2.a) The EFS telephone/page system provides intraplant, station-to-station communications and area broadcasting between the MCR and the locations listed in Table 2.3.19-1.	An inspection and test will be performed on the telephone/page communication equipment.	Telephone/page equipment is installed and voice transmission and reception from the MCR are accomplished.
		2.b) EFS provides sound-powered communications between the MCR, the RSW, the Division A, B, C, D dc equipment rooms (Rooms 12201/12203/12205/ 12207), the Division A, B, C, D I&C rooms (Rooms 12301/12302/ 12304/12305), and the diesel generator building (Rooms 60310/60320) without external power.	An inspection and test will be performed of the sound-powered communication equipment.	Sound-powered equipment is installed and voice transmission and reception are accomplished.
487	2.3.19.02b	Not used per Amendment No. 112		

2.3.20 Turbine Building Closed Cooling Water System

No entry for this system.

2.3.21 Secondary Sampling System

No entry for this system.

2.3.22 Containment Leak Rate Test System

No entry. Covered in Section 2.2.1, Containment System.

2.3.23 This section intentionally blank

2.3.24 Demineralized Water Treatment System

No entry for this system.

2.3.25 Gravity and Roof Drain Collection System

No entry for this system.

2.3.26 This section intentionally blank

2.3.27 Sanitary Drainage System

No entry for this system.

2.3.28 Turbine Island Vents, Drains, and Relief System

No entry for this system.

2.3.29 Radioactive Waste Drain System

Design Description

The radioactive waste drain system (WRS) collects radioactive and potentially radioactive liquid wastes from equipment and floor drains during normal operation, startup, shutdown, and refueling. The liquid wastes are then transferred to appropriate processing and disposal systems.

Nonradioactive wastes are collected by the waste water system (WWS). The WRS is as shown in Figure 2.3.29-1.

1. The functional arrangement of the WRS is as described in the Design Description of this Section 2.3.29.
2. The WRS collects liquid wastes from the equipment and floor drainage of the radioactive portions of the auxiliary building, annex building, and radwaste building and directs these wastes to a WRS sump or WLS waste holdup tanks located in the auxiliary building.
3. The WRS collects chemical wastes from the auxiliary building chemical laboratory drains and the decontamination solution drains in the annex building and directs these wastes to the chemical waste tank of the liquid radwaste system.
4. The WWS stops the discharge from the turbine building sumps upon detection of high radiation in the discharge stream to the oil separator.

Table 2.3.29-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
488	2.3.29.01	1. The functional arrangement of the WRS is as described in the Design Description of this Section 2.3.29.	Inspection of the as-built system will be performed.	The as-built WRS conforms with the functional arrangement as described in the Design Description of this Section 2.3.29.
489	2.3.29.02	2. The WRS collects liquid wastes from the equipment and floor drainage of the radioactive portions of the auxiliary building, annex building, and radwaste building and directs these wastes to a WRS sump or WLS waste holdup tanks located in the auxiliary building.	A test is performed by pouring water into the equipment and floor drains in the radioactive portions of the auxiliary building, annex building, and radwaste building.	The water poured into these drains is collected either in the auxiliary building radioactive drains sump or the WLS waste holdup tanks.
		3. The WRS collects chemical wastes from the auxiliary building chemical laboratory drains and the decontamination solution drains in the annex building and directs these wastes to the chemical waste tank of the liquid radwaste system.	A test is performed by pouring water into the auxiliary building chemical laboratory and the decontamination solution drains in the annex building.	The water poured into these drains is collected in the chemical waste tank of the liquid radwaste system.
490	2.3.29.03	Not used per Amendment No. 112		
491	2.3.29.04	4. The WWS stops the discharge from the turbine building sumps upon detection of high radiation in the discharge stream to the oil separator.	Tests will be performed to confirm that a simulated high radiation signal from the turbine building sump discharge radiation monitor, WWS-021 causes the sump pumps (WWS-MP-01A and B, and WWS-MP-07A and B) to stop operating, stopping the spread of radiation outside of the turbine building.	A simulated high radiation signal causes the turbine building sump pumps (WWS-MP-01A and B, and WWS-MP-07A and B) to stop operating, stopping the spread of radiation outside of the turbine building.

Table 2.4.1-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
492	2.4.01.01	1. The functional arrangement of the startup feedwater system is as described in the Design Description of this Section 2.4.1.	Inspection of the as-built system will be performed.	The as-built startup feedwater system conforms with the functional arrangement as described in the Design Description of this Section 2.4.1.
493	2.4.01.02	2. The FWS provides startup feedwater flow from the CST to the SGS for heat removal from the RCS.	Testing will be performed to confirm that each of the startup feedwater pumps can provide water from the CST to both steam generators.	Each FWS startup feedwater pump provides a flow rate greater than or equal to 260 gpm to each steam generator system at a steam generator secondary side pressure of at least 1106 psia.
		3. Controls exist in the MCR to cause the components identified in Table 2.4.1-1 to perform the listed function.	Testing will be performed on the components in Table 2.4.1-1 using controls in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.4.1-1 to perform the listed functions.
		4. Displays of the parameters identified in Table 2.4.1-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of parameters in the MCR.	The displays identified in Table 2.4.1-1 can be retrieved in the MCR.
494	2.4.01.03	Not used per Amendment No. 112		
495	2.4.01.04	Not used per Amendment No. 112		

Table 2.4.1-3		
Component Name	**Tag No.**	**Component Location**
Startup Feedwater Pump A	FWS-MP-03A	Turbine Building
Startup Feedwater Pump B	FWS-MP-03B	Turbine Building

2.4.2 Main Turbine System

Design Description

The main turbine system (MTS) is designed for electric power production consistent with the capability of the reactor and the reactor coolant system.

The component locations of the MTS are as shown in Table 2.4.2-2.

1. The functional arrangement of the MTS is as described in the Design Description of this Section 2.4.2.
2. a) Controls exist in the MCR to trip the main turbine-generator.
   b) The main turbine-generator trips after receiving a signal from the PMS.
   c) The main turbine-generator trips after receiving a signal from the DAS.
3. The overspeed trips for the AP1000 turbine are set for 110% and 111% (±1% each). Each trip is initiated electrically in separate systems. The trip signals from the two turbine electrical overspeed protection trip systems are isolated from, and independent of, each other.

Table 2.4.2-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
496	2.4.02.01	1. The functional arrangement of the MTS is as described in the Design Description of this Section 2.4.2.	Inspection of the as-built system will be performed.	The as-built MTS conforms with the functional arrangement as described in the Design Description of this Section 2.4.2.
497	2.4.02.02a	2.a) Controls exist in the MCR to trip the main turbine-generator.	Testing will be performed on the main turbine-generator using controls in the MCR.	Controls in the MCR operate to trip the main turbine-generator.
		2.c) The main turbine-generator trips after receiving a signal from the DAS.	Testing will be performed using real or simulated signals into the DAS.	The main turbine-generator trips after receiving a signal from the DAS.
		3) The trip signals from the two turbine electrical overspeed protection trip systems are isolated from, and independent of, each other.	ii) Testing of the as-built system will be performed using simulated signals from the turbine speed sensors.	ii) The main turbine-generator trips after overspeed signals are received from the speed sensors of the 110% emergency electrical overspeed trip system, and the main turbine-generator trips after overspeed signals are received from the speed sensors of the 111% backup electrical overspeed trip system.

Table 2.4.2-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
498	2.4.02.02b	2.b) The main turbine-generator trips after receiving a signal from the PMS.	Testing will be performed using real or simulated signals into the PMS.	The main turbine-generator trips after receiving a signal from the PMS.
499	2.4.02.02c	Not used per Amendment No. 112		
500	2.4.02.03.i	3) The trip signals from the two turbine electrical overspeed protection trip systems are isolated from, and independent of, each other.	i) The system design will be reviewed.	i) The system design review shows that the trip signals of the two electrical overspeed protection trip systems are isolated from, and independent of, each other.

Table 2.4.2-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
501	2.4.02.03.ii	Not used per Amendment No. 112		
502	2.4.02.03.iii	3) The trip signals from the two turbine electrical overspeed protection trip systems are isolated from, and independent of, each other.	iii) Inspection will be performed for the existence of a report verifying that the two turbine electrical overspeed protection systems have diverse hardware and software/firmware.	iii) A report exists and concludes that the two electrical overspeed protection systems have diverse hardware and software/firmware.

Table 2.4.2-2		
Component Name	**Tag No.**	**Component Location**
HP Turbine	MTS-MG-01	Turbine Building
LP Turbine A	MTS-MG-02A	Turbine Building
LP Turbine B	MTS-MG-02B	Turbine Building
LP Turbine C	MTS-MG-02C	Turbine Building
Gland Steam Condenser	GSS-ME-01	Turbine Building
Gland Condenser Vapor Exhauster 1A	GSS-MA-01A	Turbine Building
Gland Condenser Vapor Exhauster 1B	GSS-MA-01B	Turbine Building
Electrical Overspeed Trip Device	--	Turbine Building
Emergency Electrical Overspeed Trip Device	--	Turbine Building

2.4.3 Main Steam System

No entry. Covered in Section 2.2.4, Steam Generator System.

Table 2.5.1-3 DAS Sensors and Displays	
Equipment Name	**Tag Number**
Containment Temperature	VCS-053A
Containment Temperature	VCS-053B
Core Exit Temperature	IIS-009
Core Exit Temperature	IIS-013
Core Exit Temperature	IIS-030
Core Exit Temperature	IIS-034
Rod Control Motor Generator Voltage	PLS-001
Rod Control Motor Generator Voltage	PLS-002

Table 2.5.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
505	2.5.01.01	Not used per Amendment No. 85		
506	2.5.01.02a	2.a) The DAS provides an automatic reactor trip on low wide-range steam generator water level, or on low pressurizer water level, or on high hot leg temperature, separate from the PMS.	Electrical power to the PMS equipment will be disconnected and an operational test of the as-built DAS will be performed using real or simulated test signals.	The generator field control relays (contained in the control cabinets for the rod drive motor-generator sets) open after the test signal reaches the specified limit.
		2.b) The DAS provides automatic actuation of selected functions, as identified in Table 2.5.1-1, separate from the PMS.	Electrical power to the PMS equipment will be disconnected and an operational test of the as-built DAS will be performed using real or simulated test signals.	Appropriate DAS output signals are generated after the test signal reaches the specified limit.
		2.c) The DAS provides manual initiation of reactor trip, and selected functions, as identified in Table 2.5.1-2, separate from the PMS. These manual initiation functions are implemented in a manner that bypasses the control room multiplexers, if any; the PMS cabinets; and the signal processing equipment of the DAS.	Electrical power to the control room multiplexers, if any, and PMS equipment will be disconnected and the outputs from the DAS signal processing equipment will be disabled. While in this configuration, an operational test of the as-built system will be performed using the DAS manual actuation controls.	i) The generator field control relays (contained in the control cabinets for the rod drive motor-generator sets) open after reactor and turbine trip manual initiation controls are actuated.

Table 2.5.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			Electrical power to the control room multiplexers, if any, and PMS equipment will be disconnected and the outputs from the DAS signal processing equipment will be disabled. While in this configuration, an operational test of the as-built system will be performed using the DAS manual actuation controls.	ii) DAS output signals are generated for the selected functions, as identified in Table 2.5.1-2, after manual initiation controls are actuated.
		2.d) The DAS provides MCR displays of selected plant parameters, as identified in Table 2.5.1-3, separate from the PMS.	Electrical power to the PMS equipment will be disconnected and inspection will be performed for retrievability of the selected plant parameters in the MCR.	The selected plant parameters can be retrieved in the MCR.
		3.f) The DAS is powered by non-Class 1E uninterruptible power supplies that are independent and separate from the power supplies which power the PMS.	Electrical power to the PMS equipment will be disconnected. While in this configuration, a test will be performed by providing simulated test signals in the non-Class 1E uninterruptible power supplies.	A simulated test signal exists at the DAS equipment when the assigned non-Class 1E uninterruptible power supply is provided the test signal.
		3.g) The DAS signal processing cabinets are provided with the capability for channel testing without actuating the controlled components.	Channel tests will be performed on the as built system.	The capability exists for testing individual DAS channels without propagating an actuation signal to a DAS controlled component.
507	2.5.01.02b	Not used per Amendment No. 112		
508	2.5.01.02c.i	Not used per Amendment No. 112		

Table 2.5.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
509	2.5.01.02c.ii	Not used per Amendment No. 112		
510	2.5.01.02d	Not used per Amendment No. 112		
511	2.5.01.03a	3.a) The signal processing hardware of the DAS uses input modules, output modules, and microprocessor or special purpose logic processor boards that are different than those used in the PMS.	Inspection of the as-built DAS and PMS signal processing hardware will be performed.	The DAS signal processing equipment uses input modules, output modules, and micro-processor or special purpose logic processor boards that are different than those used in the PMS. The difference may be a different design, use of different component types, or different manufacturers.
512	2.5.01.03b	3.b) The display hardware of the DAS uses a different display device than that used in the PMS.	Inspection of the as-built DAS and PMS display hardware will be performed.	The DAS display hardware is different than the display hardware used in the PMS. The difference may be a different design, use of different component types, or different manufacturers.
513	2.5.01.03c	3.c) Software diversity between the DAS and PMS will be achieved through the use of different algorithms, logic, program architecture, executable operating system, and executable software/logic.	Inspection of the DAS and PMS design documentation will be performed.	Any DAS algorithms, logic, program architecture, executable operating systems, and executable software/logic are different than those used in the PMS.
514	2.5.01.03d	3.d) The DAS has electrical surge withstand capability (SWC), and can withstand the electromagnetic interference (EMI), radio frequency (RFI), and electrostatic discharge (ESD) conditions that exist where the DAS equipment is located in the plant.	Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment.	A report exists and concludes that the DAS equipment can withstand the SWC, EMI, RFI and ESD conditions that exist where the DAS equipment is located in the plant.

Table 2.5.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
515	2.5.01.03e	3.e) The sensors identified on Table 2.5.1-3 are used for DAS input and are separate from those being used by the PMS and plant control system.	Inspection of the as-built system will be performed.	The sensors identified on Table 2.5.1-3 are used by DAS and are separate from those being used by the PMS and plant control system.
516	2.5.01.03f	Not used per Amendment No. 112		
517	2.5.01.03g	Not used per Amendment No. 112		
518	2.5.01.03h	3.h) The DAS equipment can withstand the room ambient temperature and humidity conditions that will exist at the plant locations in which the DAS equipment is installed at the times for which the DAS is designed to be operational.	Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment.	A report exists and concludes that the DAS equipment can withstand the room ambient temperature and humidity conditions that will exist at the plant locations in which the DAS equipment is installed at the times for which the DAS is designed to be operational.
519	2.5.01.04	4. The DAS hardware and any software are developed using a planned design process which provides for specific design documentation and reviews during the following life cycle stages: a) Development phase for hardware and any software b) System test phase c) Installation phase The planned design process also provides for the use of commercial off-the-shelf hardware and software.	Inspection will be performed of the process used to design the hardware and any software.	A report exists and concludes that the process defines the organizational responsibilities, activities, and configuration management controls for the following: a) Documentation and review of hardware and any software. b) Performance of tests and the documentation of test results during the system test phase. c) Performance of tests and inspections during the installation phase. The process also defines requirements for the use of commercial off-the-shelf hardware and software.

Table 2.5.2-8 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
527	2.5.02.05a	5.a) The Class 1E equipment, identified in Table 2.5.2-1, is powered from its respective Class 1E division.	Tests will be performed by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.5.2-1 when the assigned Class 1E division is provided the test signal.
528	2.5.02.05b	Not used per Amendment No. 84		
529	2.5.02.06a.i	6.a) The PMS initiates an automatic reactor trip, as identified in Table 2.5.2-2, when plant process signals reach specified limits.	An operational test of the as-built PMS will be performed using real or simulated test signals.	i) The reactor trip switchgear opens after the test signal reaches the specified limit. This only needs to be verified for one automatic reactor trip function.
530	2.5.02.06a.ii	6.a) The PMS initiates an automatic reactor trip, as identified in Table 2.5.2-2, when plant process signals reach specified limits. 6.b) The PMS initiates automatic actuation of engineered safety features, as identified in Table 2.5.2-3, when plant process signals reach specified limits. 6.c) The PMS provides manual initiation of reactor trip and selected engineered safety features as identified in Table 2.5.2-4.	An operational test of the as-built PMS will be performed using real or simulated test signals. An operational test of the as-built PMS will be performed using real or simulated test signals. An operational test of the as-built PMS will be performed using the PMS manual actuation controls.	ii) PMS output signals to the reactor trip switchgear are generated after the test signal reaches the specified limit. This needs to be verified for each automatic reactor trip function. Appropriate PMS output signals are generated after the test signal reaches the specified limit. These output signals remain following removal of the test signal. Tests from the actuation signal to the actuated device(s) are performed as part of the system-related inspection, test, analysis, and acceptance criteria. ii) PMS output signals are generated for reactor trip and selected engineered safety features as identified in Table 2.5.2-4 after the manual initiation controls are actuated.

Table 2.5.2-8
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
		8.a) The PMS provides for the minimum inventory of displays, visual alerts, and fixed position controls, as identified in Table 2.5.2-5. The plant parameters listed with a "Yes" in the "Display" column and visual alerts listed with a "Yes" in the "Alert" column can be retrieved in the MCR. The fixed position controls listed with a "Yes" in the "Control" column are provided in the MCR.	i) An inspection will be performed for retrievability of plant parameters in the MCR.	i) The plant parameters listed in Table 2.5.2-5 with a "Yes" in the "Display" column, can be retrieved in the MCR.
			iii) An operational test of the as-built system will be performed using each MCR fixed position control.	iii) For each test of an as-built fixed position control listed in Table 2.5.2-5 with a "Yes" in the "Control" column, an actuation signal is generated. Tests from the actuation signal to the actuated device(s) are performed as part of the system-related inspection, test, analysis and acceptance criteria.
		8.c) Displays of the open/closed status of the reactor trip breakers can be retrieved in the MCR.	Inspection will be performed for retrievability of displays of the open/closed status of the reactor trip breakers in the MCR.	Displays of the open/closed status of the reactor trip breakers can be retrieved in the MCR.
		9.a) The PMS automatically removes blocks of reactor trip and engineered safety features actuation when the plant approaches conditions for which the associated function is designed to provide protection. These blocks are identified in Table 2.5.2-6.	An operational test of the as-built PMS will be performed using real or simulated test signals.	The PMS blocks are automatically removed when the test signal reaches the specified limit.
		9.b) The PMS two-out-of-four initiation logic reverts to a two-out-of-three coincidence logic if one of the four channels is bypassed. All bypassed channels are alarmed in the MCR.	An operational test of the as-built PMS will be performed.	The PMS two-out-of-four initiation logic reverts to a two-out-of-three coincidence logic if one of the four channels is bypassed. All bypassed channels are alarmed in the MCR.
		9.c) The PMS does not allow simultaneous bypass of two redundant channels.	An operational test of the as-built PMS will be performed. With one channel in bypass, an attempt will be made to place a redundant channel in bypass.	The redundant channel cannot be placed in bypass.

Table 2.5.2-8 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
531	2.5.02.06b	Not used per Amendment No. 112		
532	2.5.02.06c.i	6.c) The PMS provides manual initiation of reactor trip and selected engineered safety features as identified in Table 2.5.2-4.	An operational test of the as-built PMS will be performed using the PMS manual actuation controls.	i) The reactor trip switchgear opens after manual reactor trip controls are actuated.
533	2.5.02.06c.ii	Not used per Amendment No. 112		
534	2.5.02.07a	7.a) The PMS provides process signals to the PLS through isolation devices.	Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.	A report exists and concludes that the isolation devices prevent credible faults from propagating into the PMS.
535	2.5.02.07b	7.b) The PMS provides process signals to the DDS through isolation devices.	Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.	A report exists and concludes that the isolation devices prevent credible faults from propagating into the PMS.
536	2.5.02.07c	7.c) Data communication between safety and nonsafety systems does not inhibit the performance of the safety function.	Type tests, analyses, or a combination of type tests and analyses of the PMS gateways will be performed.	A report exists and concludes that data communication between safety and nonsafety systems does not inhibit the performance of the safety function.
537	2.5.02.07d	7.d) The PMS ensures that the automatic safety function and the Class 1E manual controls both have priority over the non-Class 1E soft controls.	Type tests, analyses, or a combination of type tests and analyses of the PMS manual control circuits and algorithms will be performed.	A report exists and concludes that the automatic safety function and the Class 1E manual controls both have priority over the non-Class 1E soft controls.
538	2.5.02.07e	7.e) The PMS receives signals from non-safety equipment that provides interlocks for PMS test functions through isolation devices.	Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.	A report exists and concludes that the isolation devices prevent credible faults from propagating into the PMS.
539	2.5.02.08a.i	Not used per Amendment No. 112		

Table 2.5.2-8 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
540	2.5.02.08a.ii	8.a) The PMS provides for the minimum inventory of displays, visual alerts, and fixed position controls, as identified in Table 2.5.2-5. The plant parameters listed with a "Yes" in the "Display" column and visual alerts listed with a "Yes" in the "Alert" column can be retrieved in the MCR. The fixed position controls listed with a "Yes" in the "Control" column are provided in the MCR.	ii) An inspection and test will be performed to verify that the plant parameters are used to generate visual alerts that identify challenges to critical safety functions.	ii) The plant parameters listed in Table 2.5.2-5 with a "Yes" in the "Alert" column are used to generate visual alerts that identify challenges to critical safety functions. The visual alerts actuate in accordance with their correct logic and values.
541	2.5.02.08a.iii	Not used per Amendment No. 112		
542	2.5.02.08b.i	8.b) The PMS provides for the transfer of control capability from the MCR to the RSW using multiple transfer switches. Each individual transfer switch is associated with only a single safety-related group or with nonsafety-related control capability.	i) An inspection will be performed to verify that a transfer switch exists for each safety-related division and the nonsafety-related control capability.	i) A transfer switch exists for each safety-related division and the nonsafety-related control capability.
543	2.5.02.08b.ii	8.b) The PMS provides for the transfer of control capability from the MCR to the RSW using multiple transfer switches. Each individual transfer switch is associated with only a single safety-related group or with nonsafety-related control capability.	ii) An operational test of the as-built system will be performed to demonstrate the transfer of control capability from the MCR to the RSW.	ii) Actuation of each transfer switch results in an alarm in the MCR and RSW, the activation of operator control capability from the RSW, and the deactivation of operator control capability from the MCR for the associated safety-related division and nonsafety-related control capability.
544	2.5.02.08c	Not used per Amendment No. 112		

Table 2.5.2-8 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
545	2.5.02.09a	Not used per Amendment No. 112		
546	2.5.02.09b	Not used per Amendment No. 112		
547	2.5.02.09c	Not used per Amendment No. 112		
548	2.5.02.09d	9.d) The PMS provides the interlock functions identified in Table 2.5.2-7.	An operational test of the as-built PMS will be performed using real or simulated test signals.	Appropriate PMS output signals are generated as the interlock conditions are changed.
549	2.5.02.10	10. Setpoints are determined using a methodology which accounts for loop inaccuracies, response testing, and maintenance or replacement of instrumentation.	Inspection will be performed for a document that describes the methodology and input parameters used to determine the PMS setpoints.	A report exists and concludes that the PMS setpoints are determined using a methodology which accounts for loop inaccuracies, response testing, and maintenance or replacement of instrumentation.

Table 2.5.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
556	2.5.04.01	1. The functional arrangement of the DDS is as described in the Design Description of this Section 2.5.4.	Inspection of the as-built system will be performed.	The as-built DDS conforms with the functional arrangement as described in the Design Description of this Section 2.5.4.
557	2.5.04.02.i	2. The DDS provides for the minimum inventory of displays, visual alerts, and fixed position controls, as identified in Table 2.5.4-1. The plant parameters listed with a "Yes" in the "Display" column and visual alerts listed with a "Yes" in the "Alert" column can be retrieved at the RSW. The controls listed with a "Yes" in the "Control" column are provided at the RSW.	i) An inspection will be performed for retrievability of plant parameters at the RSW. ii) An inspection and test will be performed to verify that the plant parameters are used to generate visual alerts that identify challenges to critical safety functions. iii) An operational test of the as-built system will be performed using each RSW control.	i) The plant parameters listed in Table 2.5.4-1 with a "Yes" in the "Display" column can be retrieved at the RSW. ii) The plant parameters listed in Table 2.5.4-1 with a "Yes" in the "Alert" column are used to generate visual alerts that identify challenges to critical safety functions. The visual alerts actuate in accordance with their logic and values. iii) For each test of a control listed in Table 2.5.4-1 with a "Yes" in the "Control" column, an actuation signal is generated. Tests from the actuation signal to the actuated device(s) are performed as part of the system-related inspection, test, analysis and acceptance criteria.
558	2.5.04.02.ii	Not used per Amendment No. 112		
559	2.5.04.02.iii	Not used per Amendment No. 112		
560	2.5.04.03	3. The DDS provides information pertinent to the status of the protection and safety monitoring system.	Tests of the as-built system will be performed.	The as-built system provides displays of the bypassed and operable status of the protection and safety monitoring system.

Table 2.5.4-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
561	C.2.5.04.04a	4. The plant calorimetric uncertainty and plant instrumentation performance is bounded by the 1% calorimetric uncertainty value assumed for the initial reactor power in the safety analysis.	Inspection will be performed of the plant operating instrumentation installed for feedwater flow measurement, its associated power calorimetric uncertainty calculation, and the calculated calorimetric values.	a) The as-built system takes input for feedwater flow measurement from a Caldon [Cameron] LEFM CheckPlus™ System;
			Inspection will be performed of the plant operating instrumentation installed for feedwater flow measurement, its associated power calorimetric uncertainty calculation, and the calculated calorimetric values.	b) the power calorimetric uncertainty calculation documented for that instrumentation is based on an accepted Westinghouse methodology and the uncertainty values for that instrumentation are not lower than those for the actual installed instrumentation; and
			Inspection will be performed of the plant operating instrumentation installed for feedwater flow measurement, its associated power calorimetric uncertainty calculation, and the calculated calorimetric values.	c) the calculated calorimetric power uncertainty measurement values are bounded by the 1% uncertainty value assumed for the initial reactor power in the safety analysis.
562	C.2.5.04.04b	Not used per Amendment No. 112		
563	C.2.5.04.04c	Not used per Amendment No. 112		

2.5.5 In-Core Instrumentation System

Design Description

The in-core instrumentation system (IIS) provides safety-related core exit thermocouple signals to the protection and safety monitoring system (PMS). The IIS also provides nonsafety-related core exit thermocouple signals to the diverse actuation system (DAS). The core exit thermocouples are housed in the core instrument assemblies. Multiple core instrument assemblies are used to provide radial coverage of the core. At least three core instrument assemblies are provided in each core quadrant.

1. The functional arrangement of the IIS is as described in the Design Description of this Section 2.5.5.
2. The seismic Category I equipment identified in Table 2.5.5-1 can withstand seismic design basis loads without loss of safety function.
3. a) The Class 1E equipment identified in Table 2.5.5-1 as being qualified for a harsh environment can withstand environmental conditions that would exist before, during, and following a design basis accident without loss of safety function, for the time required to perform the safety function.

Table 2.6.1-4

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
578	2.6.01.01	1. The functional arrangement of the ECS is as described in the Design Description of this Section 2.6.1.	Inspection of the as-built system will be performed.	The as-built ECS conforms with the functional arrangement as described in the Design Description of this Section 2.6.1.
579	2.6.01.02.i	2. The seismic Category I equipment identified in Table 2.6.1-1 can withstand seismic design basis loads without loss of safety function.	i) Inspection will be performed to verify that the seismic Category I equipment identified in Table 2.6.1-1 is located on the Nuclear Island. ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed. iii) Inspection will be performed for the existence of a report verifying that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.	i) The seismic Category I equipment identified in Table 2.6.1-1 is located on the Nuclear Island. ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function. iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.
580	2.6.01.02.ii	Not used per Amendment No. 84		
581	2.6.01.02.iii	Not used per Amendment No. 84		
582	2.6.01.03a	3.a) The Class 1E breaker control power for the equipment identified in Table 2.6.1-1 are powered from their respective Class 1E division.	Testing will be performed on the ECS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.6.1-1 when the assigned Class 1E division is provided the test signal.
583	2.6.01.03b	Not used per Amendment No. 84		
584	2.6.01.04a	Not used per Amendment No. 112		
585	2.6.01.04b	Not used per Amendment No. 84		

Table 2.6.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
586	2.6.01.04c	4.c) Each standby diesel generator 6900 Vac circuit breaker closes after receiving a signal from the onsite standby power system.	Testing will be performed using real or simulated signals from the standby diesel load system.	Each standby diesel generator 6900 Vac circuit breaker closes after receiving a signal from the standby diesel system.
587	2.6.01.04d	4.d) Each ancillary diesel generator unit is sized to supply power to long-term safety-related post-accident monitoring loads and control room lighting and ventilation through a regulating transformer; and for one PCS recirculation pump.	Each ancillary diesel generator will be operated with fuel supplied from the ancillary diesel generator fuel tank and with a load of 35 kW or greater and a power factor between 0.9 and 1.0 for a time period required to reach engine temperature equilibrium plus 2.5 hours.	Each diesel generator provides power to the load with a generator terminal voltage of 480 ± 10% volts and a frequency of 60 ± 5% Hz.
588	2.6.01.04e	4.a) The ECS provides the capability for distributing non-Class 1E ac power from onsite sources (ZOS) to nonsafety-related loads listed in Table 2.6.1-2. 4.e) The ECS provides two loss-of-voltage signals to the onsite standby power system (ZOS), one for each diesel-backed 6900 Vac switchgear bus. 4.f) The ECS provides a reverse-power trip of the generator circuit breaker which is blocked for at least 15 seconds following a turbine trip. 5. Controls exist in the MCR to cause the circuit breakers identified in Table 2.6.1-3 to perform the listed functions. 6. Displays of the parameters identified in Table 2.6.1-3 can be retrieved in the MCR.	Tests will be performed using a test signal to confirm that an electrical path exists for each selected load listed in Table 2.6.1-2 from an ECS-ES-1 or ECS-ES-2 bus. Each test may be a single test or a series of over-lapping tests. Tests on the as-built ECS system will be conducted by simulating a loss-of-voltage condition on each diesel-backed 6900 Vac switchgear bus. Tests on the as-built ECS system will be conducted by simulating a turbine trip signal followed by a simulated reverse-power condition. The generator circuit breaker trip signal will be monitored. Tests will be performed to verify that controls in the MCR can operate the circuit breakers identified in Table 2.6.1-3. Inspection will be performed for retrievability of the displays identified in Table 2.6.1-3 in the MCR.	A test signal exists at the terminals of each selected load. A loss-of-voltage signal is generated when the loss-of-voltage condition is simulated. The generator circuit breaker trip signal does not occur until at least 15 seconds after the simulated turbine trip. Controls in the MCR cause the circuit breakers identified in Table 2.6.1-3 to operate. Displays identified in Table 2.6.1-3 can be retrieved in the MCR.

Table 2.6.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
589	2.6.01.04f	Not used per Amendment No. 112		
590	2.6.01.05	Not used per Amendment No. 112		
591	2.6.01.06	Not used per Amendment No. 112		

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
599	2.6.03.02.iii	Not used per Amendment No. 84		
600	2.6.03.03	Not used per Amendment No. 84		
601	2.6.03.04a	4.a) The IDS provides electrical independence between the Class 1E divisions.	Testing will be performed on the IDS by providing a simulated test signal in each Class 1E division.	A simulated test signal exists at the Class 1E equipment identified in Table 2.6.3-1 when the assigned Class 1E division is provided the test signal.
602	2.6.03.04b	4.b) The IDS provides electrical isolation between the non-Class 1E ac power system and the non-Class 1E lighting in the MCR.	Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.	A report exists and concludes that the battery chargers, regulating transformers, and isolation fuses prevent credible faults from propagating into the IDS.
603	2.6.03.04c	4.c) Each IDS 24-hour battery bank supplies a dc switchboard bus load for a period of 24 hours without recharging. 4.d) Each IDS 72-hour battery bank supplies a dc switchboard bus load for a period of 72 hours without recharging.	Testing of each 24-hour as-built battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the battery bank design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test. Testing of each 72-hour as-built battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the battery bank design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test.	The battery terminal voltage is greater than or equal to 210 V after a period of no less than 24 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity. The battery terminal voltage is greater than or equal to 210 V after a period of no less than 72 hours with an equivalent load that equals or exceeds the battery bank design duty cycle capacity.

Table 2.6.3-3

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
		4.e) The IDS spare battery bank supplies a dc load equal to or greater than the most severe switchboard bus load for the required period without recharging.	Testing of the as-built spare battery bank will be performed by applying a simulated or real load, or a combination of simulated or real loads which envelope the most severe of the division batteries design duty cycle. The test will be conducted on a battery bank that has been fully charged and has been connected to a battery charger maintained at 270±2 V for a period of no less than 24 hours prior to the test.	The battery terminal voltage is greater than or equal to 210 V after a period with a load and duration that equals or exceeds the most severe battery bank design duty cycle capacity.
		4.f) Each IDS 24-hour inverter supplies its ac load.	Testing of each 24-hour as-built inverter will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 12 kW. The inverter input voltage will be no more than 210 Vdc during the test.	Each 24-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.
		4.g) Each IDS 72-hour inverter supplies its ac load.	Testing of each 72-hour as-built inverter will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 7 kW. The inverter input voltage will be no more than 210 Vdc during the test.	Each 72-hour inverter supplies a line-to-line output voltage of 208 ± 2% V at a frequency of 60 ± 0.5% Hz.
		4.h) Each IDS 24-hour battery charger provides the PMS with two loss-of-ac input voltage signals.	Testing will be performed by simulating a loss of input voltage to each 24-hour battery charger.	Two PMS input signals exist from each 24-hour battery charger indicating loss of ac input voltage when the loss-of-input voltage condition is simulated.

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
		5.a) Each IDS 24-hour battery charger supplies a dc switchboard bus load while maintaining the corresponding battery charged.	Testing of each as-built 24-hour battery charger will be performed by applying a simulated or real load, or a combination of simulated or real loads.	Each 24-hour battery charger provides an output current of at least 150 A with an output voltage in the range 210 to 280 V.
		5.b) Each IDS 72-hour battery charger supplies a dc switchboard bus load while maintaining the corresponding battery charged.	Testing of each 72-hour as-built battery charger will be performed by applying a simulated or real load, or a combination of simulated or real loads.	Each 72-hour battery charger provides an output current of at least 125 A with an output voltage in the range 210 to 280 V.
		5.c) Each IDS regulating transformer supplies an ac load when powered from the 480 V MCC.	Testing of each as-built regulating transformer will be performed by applying a simulated or real load, or a combination of simulated or real loads, equivalent to a resistive load greater than 30 kW when powered from the 480 V MCC.	Each regulating transformer supplies a line-to-line output voltage of 208 ± 2% V.
		6. Safety-related displays identified in Table 2.6.3-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.6.3-1 can be retrieved in the MCR.
		11. Displays of the parameters identified in Table 2.6.3-2 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays identified in Table 2.6.3-2 in the MCR.	Displays identified in Table 2.6.3-2 can be retrieved in the MCR.

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
604	2.6.03.04d	Not used per Amendment No. 112		
605	2.6.03.04e	Not used per Amendment No. 112		
606	2.6.03.04f	Not used per Amendment No. 112		
607	2.6.03.04g	Not used per Amendment No. 112		

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
608	2.6.03.04h	Not used per Amendment No. 112		
609	2.6.03.04i	4.i) The IDS supplies an operating voltage at the terminals of the Class 1E motor operated valves identified in subsections 2.1.2, 2.2.1, 2.2.2, 2.2.3, 2.2.4, 2.3.2, 2.3.6, and 2.7.1 that is greater than or equal to the minimum specified voltage.	Testing will be performed by stroking each specified motor-operated valve and measuring the terminal voltage at the motor starter input terminals with the motor operating. The battery terminal voltage will be no more than 210 Vdc during the test.	The motor starter input terminal voltage is greater than or equal 200 Vdc with the motor operating.
876	2.6.03.04j	4.j) The IDS provides electrical isolation between the non- Class 1E battery monitors and the Class 1E battery banks.	Type tests, analyses, or a combination of type tests and analyses of the isolation devices will be performed.	A report exists and concludes that the battery monitor fuse isolation panels prevent credible faults from propagating into the Class 1E portions of the IDS.
610	2.6.03.05a	Not used per Amendment No. 112		
611	2.6.03.05b	Not used per Amendment No. 112		
612	2.6.03.05c	Not used per Amendment No. 112		
613	2.6.03.05d.i	5.d) The IDS Divisions B and C regulating transformers supply their post-72-hour ac loads when powered from an ancillary diesel generator.	Inspection of the as-built system will be performed. Inspection of the as-built system will be performed.	i) Ancillary diesel generator 1 is electrically connected to regulating transformer IDSC-DT-1 ii) Ancillary diesel generator 2 is electrically connected to regulating transformer IDSB-DT-1.

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
614	2.6.03.05d.ii	Not used per Amendment No. 112		
615	2.6.03.06	Not used per Amendment No. 112		
616	2.6.03.07	7. The IDS dc battery fuses and battery charger circuit breakers, and dc distribution panels, MCCs, and their circuit breakers and fuses, are sized to supply their load requirements.	Analyses for the as-built IDS dc electrical distribution system to determine the capacities of the battery fuses and battery charger circuit breakers, and dc distribution panels, MCCs, and their circuit breakers and fuses, will be performed.	Analyses for the as-built IDS dc electrical distribution system exist and conclude that the capacities of as-built IDS battery fuses and battery charger circuit breakers, and dc distribution panels, MCCs, and their circuit breakers and fuses, as determined by their nameplate ratings, exceed their analyzed load requirements.
		8. Circuit breakers and fuses in IDS battery, battery charger, dc distribution panel, and MCC circuits are rated to interrupt fault currents.	Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.	Analyses for the as-built IDS dc electrical distribution system exist and conclude that the analyzed fault currents do not exceed the interrupt capacity of circuit breakers and fuses in the battery, battery charger, dc distribution panel, and MCC circuits, as determined by their nameplate ratings.
		9. The IDS batteries, battery chargers, dc distribution panels, and MCCs are rated to withstand fault currents for the time required to clear the fault from its power source.	Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.	Analyses for the as-built IDS dc electrical distribution system exist and conclude that the fault current capacities of as-built IDS batteries, battery chargers, dc distribution panels, and MCCs, as determined by manufacturer's ratings, exceed their analyzed fault currents for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
		10. The IDS electrical distribution system cables are rated to withstand fault currents for the time required to clear the fault from its power source.	Analyses for the as-built IDS dc electrical distribution system to determine fault currents will be performed.	Analyses for the as-built IDS dc electrical distribution system exist and conclude that the IDS dc electrical distribution system cables will withstand the analyzed fault currents, as determined by manufacturer's ratings, for the time required to clear the fault from its power source as determined by the circuit interrupting device coordination analyses.
617	2.6.03.08	Not used per Amendment No. 112		
618	2.6.03.09	Not used per Amendment No. 112		

Table 2.6.3-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
619	2.6.03.10	Not used per Amendment No. 112		
620	2.6.03.11	Not used per Amendment No. 112		

Table 2.6.3-4		
Component Name	**Tag No.**	**Component Location**
Division A 250 Vdc 24-Hour Battery Bank	IDSA-DB-1	Auxiliary Building
Division B 250 Vdc 24-Hour Battery Bank 1	IDSB-DB-1	Auxiliary Building
Division B 250 Vdc 72-Hour Battery Bank 2	IDSB-DB-2	Auxiliary Building
Division C 250 Vdc 24-Hour Battery Bank 1	IDSC-DB-1	Auxiliary Building
Division C 250 Vdc 72-Hour Battery Bank 2	IDSC-DB-2	Auxiliary Building
Division D 250 Vdc 24-Hour Battery Bank	IDSD-DB-1	Auxiliary Building
Spare 250 Vdc Battery Bank	IDSS-DB-1	Auxiliary Building
Division A 24-Hour Battery Charger 1	IDSA-DC-1	Auxiliary Building
Division B 24-Hour Battery Charger 1	IDSB-DC-1	Auxiliary Building
Division B 72-Hour Battery Charger 2	IDSB-DC-2	Auxiliary Building
Division C 24-Hour Battery Charger 1	IDSC-DC-1	Auxiliary Building
Division C 72-Hour Battery Charger 2	IDSC-DC-2	Auxiliary Building
Division D 24-Hour Battery Charger 1	IDSD-DC-1	Auxiliary Building
Spare Battery Charger 1	IDSS-DC-1	Auxiliary Building
Division A 250 Vdc Distribution Panel	IDSA-DD-1	Auxiliary Building

Table 2.6.4-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
622	2.6.04.02a	2.a) On loss of power to a 6900 volt diesel-backed bus, the associated diesel generator automatically starts and produces ac power at rated voltage and frequency. The source circuit breakers and bus load circuit breakers are opened, and the generator is connected to the bus. 2.b) Each diesel generator unit is sized to supply power to the selected nonsafety-related electrical components. 3. Displays of diesel generator status (running/not running) and electrical output power (watts) can be retrieved in the MCR. 4. Controls exist in the MCR to start and stop each diesel generator.	Tests on the as-built ZOS system will be conducted by providing a simulated loss-of-voltage signal. The starting air supply receiver will not be replenished during the test. Each diesel generator will be operated with a load of 4000 kW or greater and a power factor between 0.9 and 1.0 for a time period required to reach engine temperature equilibrium plus 2.5 hours. Inspection will be performed for retrievability of the displays in the MCR. A test will be performed to verify that controls in the MCR can start and stop each diesel generator.	Each as-built diesel generator automatically starts on receiving a simulated loss-of-voltage signal and attains a voltage of 6900 ± 10% V and frequency 60 ± 5% Hz after the start signal is initiated and opens ac power system breakers on the associated 6900 V bus. Each diesel generator provides power to the load with a generator terminal voltage of 6900 ± 10% V and a frequency of 60 ± 5% Hz. Displays of diesel generator status and electrical output power can be retrieved in the MCR. Controls in the MCR operate to start and stop each diesel generator.
623	2.6.04.02b	Not used per Amendment No. 112		
624	2.6.04.02c	2.c) Automatic-sequence loads are sequentially loaded on the associated buses.	An actual or simulated signal is initiated to start the load sequencer operation. Output signals will be monitored to determine the operability of the load sequencer. Time measurements are taken to determine the load stepping intervals.	The load sequencer initiates a closure signal within ±5 seconds of the set intervals to connect the loads.
625	2.6.04.03	Not used per Amendment No. 112		
626	2.6.04.04	Not used per Amendment No. 112		

Table 2.6.4-2		
Component Name	**Tag No.**	**Component Location**
Onsite Diesel Generator A Package	ZOS-MS-05A	Diesel Generator Building
Onsite Diesel Generator B Package	ZOS-MS-05B	Diesel Generator Building

2.6.5 Lighting System

Design Description

The lighting system (ELS) provides the normal and emergency lighting in the main control room (MCR) and at the remote shutdown workstation (RSW).

1. The functional arrangement of the ELS is as described in the Design Description of this Section 2.6.5.
2. The ELS has six groups of emergency lighting fixtures located in the MCR and at the RSW. Each group is powered by one of the Class 1E inverters. The ELS has four groups of panel lighting fixtures located on or near safety panels in the MCR. Each group is powered by one of the Class 1E inverters in Divisions B and C (one 24-hour and one 72-hour inverter in each Division).
3. The lighting fixtures located in the MCR utilize seismic supports.
4. The panel lighting circuits are classified as associated and treated as Class 1E. These lighting circuits are routed with the Divisions B and C Class 1E circuits. Separation is provided between ELS associated divisions and between associated divisions and non-Class 1E cable.
5. The normal lighting can provide 50 foot candles at the safety panel and at the workstations in the MCR and at the RSW.
6. The emergency lighting can provide 10 foot candles at the safety panel and at the workstations in the MCR and at the RSW.

Table 2.6.5-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
627	2.6.05.01	Not used per Amendment No. 84		
628	2.6.05.02.i	Not used per Amendment No. 112		

Table 2.6.5-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
629	2.6.05.02.ii	2. The ELS has six groups of emergency lighting fixtures located in the MCR and at the RSW. Each group is powered by one of the Class 1E inverters. The ELS has four groups of panel lighting fixtures located on or near safety panels in the MCR. Each group is powered by one of the Class 1E inverters in Divisions B and C (one 24-hour and one 72-hour inverter in each Division).	i) Inspection of the as-built system will be performed.	i) The as-built ELS has six groups of emergency lighting fixtures located in the MCR and at the RSW. The ELS has four groups of panel lighting fixtures located on or near safety panels in the MCR.
			ii) Testing of the as-built system will be performed using one Class 1E inverter at a time.	ii) Each of the six as-built emergency lighting groups is supplied power from its respective Class 1E inverter and each of the four as-built panel lighting groups is supplied power from its respective Class 1E inverter.
		5. The normal lighting can provide 50 foot candles at the safety panel and at the workstations in the MCR and at the RSW.	i) Testing of the as-built normal lighting in the MCR will be performed.	i) When adjusted for maximum illumination and powered by the main ac power system, the normal lighting in the MCR provides at least 50 foot candles at the safety panel and at the workstations.
			ii) Testing of the as-built normal lighting at the RSW will be performed.	ii) When adjusted for maximum illumination and powered by the main ac power system, the normal lighting in the RSW provides at least 50 foot candles at the safety panel and at the workstations.
		6. The emergency lighting can provide 10 foot candles at the safety panel and at the workstations in the MCR and at the RSW.	i) Testing of the as-built emergency lighting in the MCR will be performed.	i) When adjusted for maximum illumination and powered by the six Class 1E inverters, the emergency lighting in the MCR provides at least 10 foot candles at the safety panel and at the workstations.

Table 2.6.5-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
			ii) Testing of the as-built emergency lighting at the RSW will be performed.	ii) When adjusted for maximum illumination and powered by the six Class 1E inverters, the emergency lighting provides at least 10 foot candles at the RSW.
630	2.6.05.03.i	3. The lighting fixtures located in the MCR utilize seismic supports.	i) Inspection will be performed to verify that the lighting fixtures located in the MCR are located on the Nuclear Island. ii) Analysis of seismic supports will be performed.	i) The lighting fixtures located in the MCR are located on the Nuclear Island. ii) A report exists and concludes that the seismic supports can withstand seismic design basis loads.
631	2.6.05.03.ii	Not used per Amendment No. 85		
632	2.6.05.04	Not used per Amendment No. 85		
633	2.6.05.05.i	Not used per Amendment No. 112		
634	2.6.05.05.ii	Not used per Amendment No. 112		
635	2.6.05.06.i	Not used per Amendment No. 112		
636	2.6.05.06.ii	Not used per Amendment No. 112		

2.6.6 Grounding and Lightning Protection System

Design Description

The grounding and lightning protection system (EGS) provides electrical grounding for instrumentation grounding, equipment grounding, and lightning protection during normal and off-normal conditions.

1. The EGS provides an electrical grounding system for: (1) instrument/computer grounding; (2) electrical system grounding of the neutral points of the main generator, main step-up transformers, auxiliary transformers, load center transformers, and onsite standby diesel generators; and (3) equipment grounding of equipment enclosures, metal structures, metallic tanks, ground bus of switchgear assemblies, load centers, motor control centers, and control cabinets. Lightning protection is provided for exposed structures and buildings housing safety-related and fire protection equipment. Each grounding system and lightning protection system is grounded to the station grounding grid.

Table 2.6.6-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
637	2.6.06.01.i	1. The EGS provides an electrical grounding system for: (1) instrument/computer grounding; (2) electrical system grounding of the neutral points of the main generator, main step-up transformers, auxiliary transformers, load center transformers, auxiliary and onsite standby diesel generators; and (3) equipment grounding of equipment enclosures, metal structures, metallic tanks, ground bus of switchgear assemblies, load centers, motor control centers, and control cabinets. Lightning protection is provided for exposed structures and buildings housing safety-related and fire protection equipment. Each grounding system and lightning protection system is grounded to the station grounding grid.	i) An inspection for the instrument/computer grounding system connection to the station grounding grid will be performed.	i) A connection exists between the instrument/computer grounding system and the station grounding grid.
			ii) An inspection for the electrical system grounding connection to the station grounding grid will be performed.	ii) A connection exists between the electrical system grounding and the station grounding grid.
			iii) An inspection for the equipment grounding system connection to the station grounding grid will be performed.	iii) A connection exists between the equipment grounding system and the station grounding grid.
			iv) An inspection for the lightning protection system connection to the station grounding grid will be performed.	iv) A connection exists between the lightning protection system and the station grounding grid.
638	2.6.06.01.ii	Not used per Amendment No. 112		

Table 2.6.6-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
639	2.6.06.01.iii	Not used per Amendment No. 112		
640	2.6.06.01.iv	Not used per Amendment No. 112		

2.6.7 Special Process Heat Tracing System

No entry for this system.

Table 2.6.9-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
643	2.6.09.04	Not used per Amendment No. 84		
644	2.6.09.05a	5.a) Security alarm annunciation and video assessment information is displayed concurrently in the central alarm station and the secondary alarm station, and the video image recording with real time playback capability can provide assessment of activities before and after each alarm annunciation within the perimeter area barrier. 15.b) Intrusion detection and assessment systems concurrently provide visual displays and audible annunciation of alarms in the central and secondary alarm stations.	Test, inspection, or a combination of test and inspections of the installed systems will be performed. Tests will be performed on intrusion detection and assessment equipment.	Security alarm annunciation and video assessment information is displayed concurrently in the central alarm station and the secondary alarm station, and the video image recording with real time playback capability provides assessment of activities before and after alarm annunciation within the perimeter barrier. The intrusion detection system concurrently provides visual displays and audible annunciations of alarms in both the central and secondary alarm stations.
645	2.6.09.05b	5.b) The central and secondary alarm stations are located inside the protected area and the interior of each alarm station is not visible from the perimeter of the protected area.	Inspections of the central and secondary alarm stations will be performed.	The central and secondary alarm stations are located inside the protected area and the interior of each alarm station is not visible from the perimeter of the protected area.
646	2.6.09.05c	5.c) The central and secondary alarm stations are designed and equipped such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to detect and assess alarms and communicate with onsite and offsite response personnel.	Inspections and/or analysis of the central and secondary alarm station will be performed.	The central and secondary alarm stations are designed and equipped such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, equipment needed to maintain the functional capability of either alarm station to detect and assess alarms and communicate with onsite and offsite response personnel exists.
647	2.6.09.06	6. The vehicle barrier system is installed and located at the necessary stand-off distance to protect against the DBT vehicle bombs.	Inspections and analysis will be performed for the vehicle barrier system.	The vehicle barrier system will protect against the DBT vehicle bombs based upon the stand-off distance of the system.
648	2.6.09.07a	Not used per Amendment No. 112		

Table 2.6.9-1
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
649	2.6.09.07b	Not used per Amendment No. 112		
650	2.6.09.08	8. Isolation zones and exterior areas within the protected area are provided with illumination to permit observation of abnormal presence or activity of persons or vehicles.	Inspection of the illumination in the isolation zones and external areas of the protected area will be performed.	The illumination in isolation zones and exterior areas within the protected area is 0.2 foot candles measured horizontally at ground level or, alternatively, sufficient to permit observation.
651	2.6.09.09	Not used per Amendment No. 112		
		10. Not used		
		11. Not used		
		12. Not used		
652	2.6.09.13a	13.a) The central and secondary alarm stations have conventional (landline) telephone service with the main control room and local law enforcement authorities. 13.b) The central and secondary alarm stations are capable of continuous communication with security personnel.	Tests, inspections, or a combination of tests and inspections of the central and secondary alarm stations' conventional telephone services will be performed. Tests, inspections, or a combination of tests and inspections of the central and secondary alarm stations' continuous communication capabilities will be performed.	The central and secondary alarm stations are equipped with conventional (landline) telephone service with the main control room and local law enforcement authorities. The central and secondary alarm stations are equipped with the capability to continuously communicate with security officers, watchmen, armed response individuals, or any security personnel that have responsibilities during a contingency event.
653	2.6.09.13b	Not used per Amendment No. 112		
654	2.6.09.13c	13.c) Non-portable communication equipment in the central and secondary alarm stations remains operable from an independent power source in the event of loss of normal power.	Tests, inspections, or a combination of tests and inspections of the non-portable communications equipment will be performed.	Non-portable communication devices (including conventional telephone systems) in the central and secondary alarm stations are wired to an independent power supply that enables the system to remain operable in the event of loss of normal power.
		14. Not used.		

Table 2.6.9-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
655	2.6.09.15a	15.a) Security alarm devices, including transmission lines to annunciators, are tamper indicating and self-checking (e.g., an automatic indication is provided when failure of the alarm system or a component occurs, or when on standby power). Alarm annunciation shall indicate the type of alarm (e.g., intrusion alarms and emergency exit alarm) and location. 16. Equipment exists to record onsite security alarm annunciation, including the location of the alarm, false alarm, alarm check, and tamper indication; and the type of alarm, location, alarm circuit, date, and time.	A test will be performed to verify that security alarms, including transmission lines to annunciators, are tamper indicating and self-checking (e.g., an automatic indication is provided when failure of the alarm system or a component occurs, or when on standby power) and that alarm annunciation indicates the type of alarm (e.g., intrusion alarms and emergency exit alarms) and location. Test, analysis, or a combination of test and analysis will be performed to ensure that equipment is capable of recording each onsite security alarm annunciation, including the location of the alarm, false alarm, alarm check, and tamper indication; and the type of alarm, location, alarm circuit, date, and time.	A report exists and concludes that security alarm devices, including transmission lines to annunciators, are tamper indicating and self-checking (e.g., an automatic indication is provided when failure of the alarm system or a component occurs, or when the system is on standby power) and that alarm annunciation indicates the type of alarm (e.g., intrusion alarms and emergency exit alarms) and location. A report exists and concludes that equipment is capable of recording each onsite security alarm annunciation, including the location of the alarm, false alarm, alarm check, and tamper indication; and the type of alarm, location, alarm circuit, date, and time.
656	2.6.09.15b	Not used per Amendment No. 112		
657	2.6.09.16	Not used per Amendment No. 112		

C.2.6.9 Physical Security

Table C.2.6.9-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
658	C.2.6.09.01	1. The external walls, doors, ceiling, and floors in the location within which the last access control function for access to the protected area is performed are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.	Type test, analysis, or a combination of type test and analysis will be performed for the external walls, doors, ceilings, and floors in the location within which the last access control function for access to the protected area is performed.	The external walls, doors, ceilings, and floors in the location within which the last access control function for access to the protected area is performed are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.

Table C.2.6.9-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
659	C.2.6.09.02	2. Physical barriers for the protected area perimeter are not part of vital area barriers.	An inspection of the protected area perimeter barrier will be performed.	Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a vital area barrier.
660	C.2.6.09.03a	3.a) Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allows 20 feet of observation on either side of the barrier. Where permanent buildings do not allow a 20-foot observation distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier.	Inspections will be performed of the isolation zones in outdoor areas adjacent to the physical barrier at the perimeter of the protected area.	Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and allow 20 feet of observation and assessment of the activities of people on either side of the barrier. Where permanent buildings do not allow a 20-foot observation and assessment distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier and the 20-foot observation and assessment distance does not apply.
661	C.2.6.09.03b	3.b) The isolation zones are monitored with intrusion detection equipment that provides the capability to detect and assess unauthorized persons. 4. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in both the Central Alarm Station and Secondary Alarm Station; b) remains operable from an uninterruptible power supply in the event of the loss of normal power.	Inspections will be performed of the intrusion detection equipment within the isolation zones. Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed. Tests, inspections or a combination of tests and inspections of the intrusion detection and assessment equipment at the protected area perimeter and its uninterruptible power supply will be performed.	The isolation zones are equipped with intrusion detection equipment that provides the capability to detect and assess unauthorized persons. The intrusion detection and assessment equipment at the protected area perimeter: a) detects penetration or attempted penetration of the protected area barrier and concurrently alarms in the Central Alarm Station and Secondary Alarm Station; b) remains operable from an uninterruptible power supply in the event of the loss of normal power.
662	C.2.6.09.04a	Not used per Amendment No. 112		

Table C.2.6.9-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
663	C.2.6.09.04b	Not used per Amendment No. 112		
664	C.2.6.09.05a	5. Access control points are established to: a) control personnel and vehicle access into the protected area. b) detect firearms, explosives, and incendiary devices at the protected area personnel access points.	Tests, inspections, or combination of tests and inspections of installed systems and equipment at the access control points to the protected area will be performed. Tests, inspections, or combination of tests and inspections of installed systems and equipment at the access control points to the protected area will be performed.	The access control points for the protected area: a) are configured to control personnel and vehicle access. b) include detection equipment that is capable of detecting firearms, incendiary devices, and explosives at the protected area personnel access points.
665	C.2.6.09.05b	Not used per Amendment No. 112		
666	C.2.6.09.06	6. An access control system with numbered picture badges is installed for use by individuals who are authorized access to protected areas and vital areas without escort.	A test of the access control system with numbered picture badges will be performed.	The access authorization system with numbered picture badges can identify and authorize protected area and vital area access only to those personnel with unescorted access authorization.
667	C.2.6.09.07	7. Access to vital equipment physical barriers requires passage through the protected area perimeter barrier. 7.a) Vital equipment is located only within a vital area. 7.b) Access to vital equipment requires passage through the vital area barrier.	Inspection will be performed to confirm that access to vital equipment physical barriers requires passage through the protected area perimeter barrier. Inspection will be performed to confirm that vital equipment is located within a vital area Inspection will be performed to confirm that access to vital equipment requires passage through the vital area barrier.	Vital equipment is located within a protected area such that access to vital equipment physical barriers requires passage through the protected area perimeter barrier. All vital equipment is located only within a vital area. Vital equipment is located within a protected area such that access to vital equipment requires passage through the vital area barrier.

Table C.2.6.9-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
668	C.2.6.09.08a	8.a) Penetrations through the protected area barrier are secured and monitored. 8.b) Unattended openings (such as underground pathways) that intersect the protected area boundary or vital area boundary will be protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.	Inspections will be performed of penetrations through the protected area barrier. Inspections will be performed of unattended openings that intersect the protected area boundary or vital area boundary.	Penetrations and openings through the protected area barrier are secured and monitored. Unattended openings (such as underground pathways) that intersect the protected area boundary or vital area boundary are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.

Table C.2.6.9-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
669	C.2.6.09.08b	Not used per Amendment No. 112		
670	C.2.6.09.09	9. Emergency exits through the protected area perimeter are alarmed and secured with locking devices to allow for emergency egress. 9. Emergency exits through the vital area boundaries are locked, alarmed, and equipped with a crash bar to allow for emergency egress.	Tests, inspections, or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed. Test, inspection, or a combination of tests and inspections of the emergency exits through the vital area boundaries will be performed.	Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency. The emergency exits through the vital area boundaries are locked, alarmed, and equipped with a crash bar to allow for emergency egress.

2.6.10 Main Generation System

No entry. Covered in Section 2.6.1, Main ac Power System.

2.6.11 Excitation and Voltage Regulation System

No entry for this system.

C.2.6.12 Transmission Switchyard and Offsite Power System

Table C.2.6.12-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
671	C.2.6.12.01	1. A minimum of one offsite circuit supplies electric power from the transmission network to the interface with the onsite alternating current (ac) power system.	Inspections of the as-built offsite circuit will be performed.	At least one offsite circuit is provided from the transmission switchyard interface to the interface with the onsite ac power system.
672	C.2.6.12.02	2. Each offsite power circuit interfacing with the onsite ac power system is adequately rated to supply assumed loads during normal, abnormal and accident conditions.	Analyses of the offsite power system will be performed to evaluate the as-built ratings of each offsite circuit interfacing with the onsite ac power system against the load assumptions.	A report exists and concludes that each as-built offsite circuit is rated to supply the load assumptions during normal, abnormal and accident conditions.

Table 2.7.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
688	2.7.01.06b	Not used per Amendment No. 84		
689	2.7.01.07	Not used per Amendment No. 84		
690	2.7.01.08a	Not used per Amendment No. 84		
691	2.7.01.08b	Not used per Amendment No. 84		
692	2.7.01.08c	Not used per Amendment No. 84		
693	2.7.01.08d	Not used per Amendment No. 112		
694	2.7.01.09	Not used per Amendment No. 112		
695	2.7.01.10a	Not used per Amendment No. 112		
696	2.7.01.10b	Not used per Amendment No. 112		
697	2.7.01.11	Not used per Amendment No. 112		

Table 2.7.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
698	2.7.01.12	Not used per Amendment No. 112		
699	2.7.01.13	Not used per Amendment No. 112		
700	2.7.01.14	8.d) The VBS provides ventilation cooling via the ancillary equipment in Table 2.7.1-3 to the MCR and the division B&C Class 1E I&C rooms.	Testing will be performed on the components in Table 2.7.1-3.	The fans start and run.
		9. Safety-related displays identified in Table 2.7.1-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the safety-related displays in the MCR.	Safety-related displays identified in Table 2.7.1-1 can be retrieved in the MCR.
		10.a) Controls exist in the MCR to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active functions.	Stroke testing will be performed on the remotely operated valves identified in Table 2.7.1-1 using the controls in the MCR.	Controls in the MCR operate to cause the remotely operated valves identified in Table 2.7.1-1 to perform their active functions.
		10.b) The valves identified in Table 2.7.1-1 as having PMS control perform their active safety function after receiving a signal from the PMS.	Testing will be performed using real or simulated signals into the PMS.	The valves identified in Table 2.7.1-1 as having PMS control perform their active safety function after receiving a signal from PMS.
		11. After loss of motive power, the remotely operated valves identified in Table 2.7.1-1 assume the indicated loss of motive power position.	Testing of the remotely operated valves will be performed under the conditions of loss of motive power.	Upon loss of motive power, each remotely operated valves identified in Table 2.7.1-1 assumes the indicated loss of motive power position.
		12. Controls exist in the MCR to cause the components identified in Table 2.7.1-3 to perform the listed function.	Testing will be performed on the components in Table 2.7.1-3 using controls in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.7.1-3 to perform the listed functions.
		13. Displays of the parameters identified in Table 2.7.1-3 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.7.1-3 can be retrieved in the MCR.
		14. The background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.	The as-built VBS will be operated, and background noise levels in the MCR and RSR will be measured.	The background noise level in the MCR and RSR does not exceed 65 dB(A) when the VBS is operating.

Table 2.7.1-5		
Component Name	**Tag No.**	**Component Location**
Supplemental Air Filtration Unit A	VBS-MS-01A	Auxiliary Building
Supplemental Air Filtration Unit B	VBS-MS-01B	Auxiliary Building
MCR/CSA Supply Air Handling Unit A	VBS-MS-02A	Auxiliary Building
MCR/CSA Supply Air Handling Unit B	VBS-MS-02B	Annex Building
Division "A" and "C" Class 1E Electrical Room AHU A	VBS-MS-03A	Auxiliary Building
Division "A" and "C" Class 1E Electrical Room AHU C	VBS-MS-03C	Auxiliary Building
Division "B" and "D" Class 1E Electrical Room AHU B	VBS-MS-03B	Auxiliary Building
Division "B" and "D" Class 1E Electrical Room AHU D	VBS-MS-03D	Auxiliary Building
MCR Toilet Exhaust Fan	VBS-MA-04	Auxiliary Building
Division "A&C" Class 1E Battery Room Exhaust Fan	VBS-MA-07A	Auxiliary Building
Division "A&C" Class 1E Battery Room Exhaust Fan	VBS-MA-07C	Auxiliary Building
Division "B&D" Class 1E Battery Room Exhaust Fan	VBS-MA-07B	Auxiliary Building

Table 2.7.2-1			
Equipment Name	**Tag No.**	**Display**	**Control Function**
CVS Pump Room Unit Cooler Fan B	VAS-MA-07B	Yes (Run Status)	Start
RNS Pump Room Unit Cooler Fan A	VAS-MA-08A	Yes (Run Status)	Start
RNS Pump Room Unit Cooler Fan B	VAS-MA-08B	Yes (Run Status)	Start
Air-cooled Chiller Water Valve	VWS-PL-V210	Yes (Position Status)	Open
Air-cooled Chiller Water Valve	VWS-PL-V253	Yes (Position Status)	Open

Table 2.7.2-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
701	2.7.02.01	1. The functional arrangement of the VWS is as described in the Design Description of this Section 2.7.2.	Inspection of the as-built system will be performed.	The as-built VWS conforms with the functional arrangement as described in the Design Description of this Section 2.7.2.
702	2.7.02.02	Not used per Amendment No. 84		
703	2.7.02.03a	3.a) The VWS provides chilled water to the supply air handling units serving the MCR, the Class 1E electrical rooms, and the unit coolers serving the RNS and CVS pump rooms.	Testing will be performed by measuring the flow rates to the chilled water cooling coils.	The water flow to each cooling coil equals or exceeds the following: Coil — Flow (gpm) VBS MY C01A/B 96 VBS MY C02A/C 97 VBS MY C02B/D 52 VAS MY C07A/B 12.3 VAS MY C12A/B 8.2 VAS MY C06A/B 8.2
		4. Controls exist in the MCR to cause the components identified in Table 2.7.2-1 to perform the listed function.	Testing will be performed on the components in Table 2.7.2-1 using controls in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.7.2-1 to perform the listed functions.
		5. Displays of the parameters identified in Table 2.7.2-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of parameters in the MCR.	The displays identified in Table 2.7.2-1 can be retrieved in the MCR.

Table 2.7.2-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
704	2.7.02.03b	3.b) The VWS air-cooled chillers transfer heat from the VWS to the surrounding atmosphere.	Inspection will be performed for the existence of a report that determines the heat transfer capability of each air-cooled chiller.	A report exists and concludes that the heat transfer rate of each air-cooled chiller is greater than or equal to 230 tons.
705	2.7.02.04	Not used per Amendment No. 112		
706	2.7.02.05	Not used per Amendment No. 112		

Table 2.7.2-3		
Component Name	**Tag No.**	**Component Location**
Water Chiller Pump A	VWS-MP-01A	Turbine Building
Water Chiller Pump B	VWS-MP-01B	Turbine Building
Air Cooled Chiller Pump 2	VWS-MP-02	Auxiliary Building
Air Cooled Chiller Pump 3	VWS-MP-03	Annex Building
Water Chiller A	VWS-MS-01A	Turbine Building
Water Chiller B	VWS-MS-01B	Turbine Building
Air Cooled Chiller 2	VWS-MS-02	Auxiliary Building
Air Cooled Chiller 3	VWS-MS-03	Auxiliary Building

Table 2.7.3-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
707	2.7.03.01	1. The functional arrangement of the VXS is as described in the Design Description of this Section 2.7.3.	Inspection of the as-built system will be performed.	The as-built VXS conforms with the functional arrangement described in the Design Description of this Section 2.7.3.
708	2.7.03.02a	Not used per Amendment No. 84		
709	2.7.03.02b	Not used per Amendment No. 84		
710	2.7.03.03	3. Controls exist in the MCR to cause the components identified in Table 2.7.3-1 to perform the listed function. 4. Displays of the parameters identified in Table 2.7.3-1 can be retrieved in the MCR.	Testing will be performed on the components in Table 2.7.3-1 using controls in the MCR. Inspection will be performed for retrievability of the parameters in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.7.3-1 to perform the listed functions. The displays identified in Table 2.7.3-1 can be retrieved in the MCR.
711	2.7.03.04	Not used per Amendment No. 112		

Table 2.7.3-3		
Component Name	**Tag No.**	**Component Location**
Annex Building General Area AHU A	VXS-MS-01A	Annex Building
Annex Building General Area AHU B	VXS-MS-01B	Annex Building
Annex Building Equipment Room AHU A	VXS-MS-02A	Annex Building
Annex Building Equipment Room AHU B	VXS-MS-02B	Annex Building
MSIV Compartment A AHU-A	VXS-MS-04A	Auxiliary Building
MSIV Compartment B AHU-B	VXS-MS-04B	Auxiliary Building
MSIV Compartment B AHU-C	VXS-MS-04C	Auxiliary Building
MSIV Compartment A AHU-D	VXS-MS-04D	Auxiliary Building
Switchgear Room AHU A	VXS-MS-05A	Annex Building

Table 2.7.4-1			
Equipment Name	**Tag No.**	**Display**	**Control Function**
Diesel Oil Transfer Module Enclosure A Exhaust Fan	VZS-MY-V03A	Yes (Run Status)	Start
Diesel Oil Transfer Module Enclosure A Electric Unit Heater	VZS-MY-U03A	Yes (Run Status)	Energize
Diesel Oil Transfer Module Enclosure B Exhaust Fan	VZS-MY-V03B	Yes (Run Status)	Start
Diesel Oil Transfer Module Enclosure B Electric Unit Heater	VZS-MY-U03B	Yes (Run Status)	Energize

Table 2.7.4-2
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
712	2.7.04.01	1. The functional arrangement of the VZS is as described in the Design Description of this Section 2.7.4.	Inspection of the as-built system will be performed.	The as-built VZS conforms with the functional arrangement described in the Design Description of this Section 2.7.4.
713	2.7.04.02a	Not used per Amendment No. 84		
714	2.7.04.02b	Not used per Amendment No. 84		
715	2.7.04.02c	Not used per Amendment No. 84		
716	2.7.04.03	3. Controls exist in the MCR to cause the components identified in Table 2.7.4-1 to perform the listed function. 4. Displays of the parameters identified in Table 2.7.4-1 can be retrieved in the MCR.	Testing will be performed on the components in Table 2.7.4-1 using controls in the MCR. Inspection will be performed for retrievability of the parameters in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.7.4-1 to perform the listed functions. The displays identified in Table 2.7.4-1 can be retrieved in the MCR.
717	2.7.04.04	Not used per Amendment No. 112		

Table 2.7.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
719	2.7.05.02.i	2. The VAS maintains each building area at a slightly negative pressure relative to the atmosphere or adjacent clean plant areas.	i) Testing will be performed to confirm that the VAS maintains each building at a slightly negative pressure when operating all VAS supply AHUs and all VAS exhaust fans.	i) The time average pressure differential in the served areas of the annex, fuel handling and radiologically controlled auxiliary buildings as measured by each of the instruments identified in Table 2.7.5-1 is negative.
			ii) Testing will be performed to confirm the ventilation flow rate through the auxiliary building fuel handling area when operating all VAS supply AHUs and all VAS exhaust fans.	ii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 15,300 cfm.
			iii) Testing will be performed to confirm the auxiliary building radiologically controlled area ventilation flow rate when operating all VAS supply AHUs and all VAS exhaust fans.	iii) A report exists and concludes that the calculated exhaust flow rate based on the measured flow rates is greater than or equal to 22,500 cfm.
		3. Displays of the parameters identified in Table 2.7.5-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.7.5-1 can be retrieved in the MCR.
720	2.7.05.02.ii	Not used per Amendment No. 112		
721	2.7.05.02.iii	Not used per Amendment No. 112		
722	2.7.05.03	Not used per Amendment No. 112		

Table 2.7.5-3		
Component Name	**Tag No.**	**Component Location**
Auxiliary/Annex Building Supply AHU A	VAS-MS-01A	Annex Building
Auxiliary/Annex Building Supply AHU B	VAS-MS-01B	Annex Building
Fuel Handling Area Supply AHU A	VAS-MS-02A	Annex Building
Fuel Handling Area Supply AHU B	VAS-MS-02B	Annex Building
CVS Pump Room Unit Cooler A	VAS-MS-05A	Auxiliary Building
CVS Pump Room Unit Cooler B	VAS-MS-05B	Auxiliary Building
RNS Pump Room Unit Cooler A	VAS-MS-06A	Auxiliary Building
RNS Pump Room Unit Cooler B	VAS-MS-06B	Auxiliary Building
Auxiliary/Annex Building Exhaust Fan A	VAS-MA-02A	Auxiliary Building
Auxiliary/Annex Building Exhaust Fan B	VAS-MA-02B	Auxiliary Building

Table 2.7.6-1			
Equipment	**Tag No.**	**Display**	**Control Function**
Containment Exhaust Fan A	VFS-MA-02A	Yes (Run Status)	Start
Containment Exhaust Fan B	VFS-MA-02B	Yes (Run Status)	Start
Containment Exhaust Fan A Flow Sensor	VFS-011A	Yes	-
Containment Exhaust Fan B Flow Sensor	VFS-011B	Yes	-

Table 2.7.6-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
723	2.7.06.01	1. The functional arrangement of the VFS is as described in the Design Description of this Section 2.7.6.	Inspection of the as-built system will be performed.	The as-built VFS conforms with the functional arrangement described in the Design Description of this Section 2.7.6.
724	2.7.06.02.i	Not used per Amendment No. 84		
725	2.7.06.02.ii	2. The VFS provides the safety-related functions of preserving containment integrity by isolation of the VFS lines penetrating containment and providing vacuum relief for the containment vessel.	ii) Testing will be performed to demonstrate that remotely operated containment vacuum relief isolation valves open within the required response time.	ii) The containment vacuum relief isolation valves (VFS-PL-V800A and VFS-PL-V800B) open within 30 seconds.

Table 2.7.6-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
726	2.7.06.03.i	3. The VFS provides the intermittent flow of outdoor air to purge the containment atmosphere during normal plant operation, and continuous flow during hot or cold plant shutdown conditions.	i) Testing will be performed to confirm that containment supply AHU fan A when operated with containment exhaust fan A provides a flow of outdoor air.	i) The flow rate measured at each fan is greater than or equal to 3,600 scfm.
			ii) Testing will be performed to confirm that containment supply AHU fan B when operated with containment exhaust fan B provides a flow of outdoor air.	ii) The flow rate measured at each fan is greater than or equal to 3,600 scfm.
			iii) Inspection will be conducted of the containment purge discharge line (VFS-L204) penetrating the containment.	iii) The nominal line size is ≥ 36 in.
		4. Controls exist in the MCR to cause the components identified in Table 2.7.6-1 to perform the listed function.	Testing will be performed on the components in Table 2.7.6-1 using controls in the MCR.	Controls in the MCR operate to cause the components listed in Table 2.7.6-1 to perform the listed functions.
		5. Displays of the parameters identified in Table 2.7.6-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.7.6-1 can be retrieved in the MCR.
727	2.7.06.03.ii	Not used per Amendment No. 112		

Table 2.7.6-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
728	2.7.06.03.iii	Not used per Amendment No. 112		
729	2.7.06.04	Not used per Amendment No. 112		
730	2.7.06.05	Not used per Amendment No. 112		

Table 2.7.6-3		
Component Name	**Tag No.**	**Component Location**
Containment Air Filtration Supply AHU A	VFS-MS-01A	Annex Building
Containment Air Filtration Supply AHU B	VFS-MS-01B	Annex Building
Containment Air Filtration Exhaust Unit A	VFS-MS-02A	Annex Building
Containment Air Filtration Exhaust Unit B	VFS-MS-02B	Annex Building

Table 3.3-6 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
813	3.3.00.08	8. Systems, structures, and components identified as essential targets are protected from the dynamic and environmental effects of postulated pipe ruptures.	Following as-built reconciliation, an inspection will be performed of the as-built high and moderate energy pipe rupture mitigation features for systems, structures, and components identified as essential targets.	An as-built Pipe Rupture Hazard Analysis Report exists and concludes that systems, structures, and components identified as essential targets can withstand the effects of postulated pipe rupture without loss of required safety function.
814	3.3.00.09	9. The reactor cavity sump has a minimum concrete thickness as shown in Table 3.3-5 between the bottom of the sump and the steel containment.	An inspection of the as-built containment building internal structures will be performed.	A report exists and concludes that the reactor cavity sump has a minimum concrete thickness as shown on Table 3.3-5 between the bottom of the sump and the steel containment.
815	3.3.00.10.i	10. The shield building roof and PCS storage tank support and retain the PCS water sources. The PCS storage tank has a stainless steel liner which provides a barrier on the inside surfaces of the tank. Leak chase channels are provided on the tank boundary liner welds.	i) A test will be performed to measure the leakage from the PCS storage tank based on measuring the water flow out of the leak chase collection system.	i) A report exists and concludes that total water flow from the leak chase collection system does not exceed 10 gal/hr.

Table 3.3-6 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
816	3.3.00.10.ii	10. The shield building roof and PCS storage tank support and retain the PCS water sources. The PCS storage tank has a stainless steel liner which provides a barrier on the inside surfaces of the tank. Leak chase channels are provided on the tank boundary liner welds.	ii) An inspection of the PCS storage tank exterior tank boundary and shield building tension ring will be performed before and after filling of the PCS storage tank to the overflow level. The vertical elevation of the shield building roof will be measured at a location at the outer radius of the roof (tension ring) and at a location on the same azimuth at the outer radius of the PCS storage tank before and after filling the PCS storage tank.	ii) A report exists and concludes that inspection and measurement of the PCS storage tank and the tension ring structure, before and after filling of the tank, shows structural behavior under normal loads to be acceptable.
			iii) An inspection of the PCS storage tank exterior tank boundary and shield building tension ring will be performed before and after filling of the PCS storage tank to the overflow level. The boundaries of the PCS storage tank and the shield building roof above the tension ring will be inspected visually for excessive concrete cracking.	iii) A report exists and concludes that there is no visible water leakage from the PCS storage tank through the concrete and that there is no visible excessive cracking in the boundaries of the PCS storage tank and the shield building roof above the tension ring.

Table 3.3-6 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	**ITAAC No.**	**Design Commitment**	**Inspections, Tests, Analyses**	**Acceptance Criteria**
817	3.3.00.10.iii	Not used per Amendment No. 112		
		11. Deleted		
818	3.3.00.12	12. The extended turbine generator axis intersects the shield building.	An inspection of the as-built turbine generator will be performed.	The extended axis of the turbine generator intersects the shield building.
819	3.3.00.13	13. Separation is provided between the structural elements of the turbine, annex and radwaste buildings and the nuclear island structure. This separation permits horizontal motion of the buildings in the safe shutdown earthquake without impact between structural elements of the buildings.	An inspection of the separation of the nuclear island from the annex, radwaste and turbine building structures will be performed. The inspection will verify the specified horizontal clearance between structural elements of the adjacent buildings, consisting of the reinforced concrete walls and slabs, structural steel columns and floor beams.	The minimum horizontal clearance above floor elevation 100′-0″ between the structural elements of the annex and radwaste buildings and the nuclear island is 4 inches. The minimum horizontal clearance above floor elevation 100′-0″ between the structural elements of the turbine building and the nuclear island is 4 inches.
820	3.3.00.14	14. The external walls, doors, ceiling, and floors in the main control room, the central alarm station, and the secondary alarm station are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.	Type test, analysis, or a combination of type test and analysis will be performed for the external walls, doors, ceilings, and floors in the main control room, the central alarm station, and the secondary alarm station.	A report exists and concludes that the external walls, doors, ceilings, and floors in the main control room, the central alarm station, and the secondary alarm station are bullet-resistant to at least Underwriters Laboratory Ballistic Standard 752, level 4.
		15. Deleted		

Table 3.5-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
829	3.5.00.04	Not used per Amendment No. 112		
830	3.5.00.05	Not used per Amendment No. 112		
831	3.5.00.06	4. Safety-related displays identified in Table 3.5-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the displays in the MCR.	Safety-related displays identified in Table 3.5-1 can be retrieved in the MCR.
		5. The process radiation monitors listed in Table 3.5-2 are provided.	Inspection for the existence of the monitors will be performed.	Each of the monitors listed in Table 3.5-2 exists.
		6. The effluent radiation monitors listed in Table 3.5-3 are provided.	Inspection for the existence of the monitors will be performed.	Each of the monitors listed in Table 3.5-3 exists.
		7. The airborne radiation monitors listed in Table 3.5-4 are provided.	Inspection for the existence of the monitors will be performed.	Each of the monitors listed in Table 3.5-4 exists.
		8. The area radiation monitors listed in Table 3.5-5 are provided.	Inspection for the existence of the monitors will be performed.	Each of the monitors listed in Table 3.5-5 exists.
832	3.5.00.07	Not used per Amendment No. 112		
833	3.5.00.08	Not used per Amendment No. 112		

Table 3.5-7		
Component Name	**Tag No.**	**Component Location**
Containment High Range Radiation Monitor	PXS-RE160	Containment
Containment High Range Radiation Monitor	PXS-RE161	Containment
Containment High Range Radiation Monitor	PXS-RE162	Containment
Containment High Range Radiation Monitor	PXS-RE163	Containment
MCR Radiation Monitoring Package A	VBS-RY01A	Auxiliary Building
MCR Radiation Monitoring Package B	VBS-RY01B	Auxiliary Building
Containment Atmosphere Radiation Monitor (Gaseous)	PSS-RE026	Auxiliary Building
Containment Atmosphere Radiation Monitor (particulate, for RCS pressure boundary leakage detection)	PSS-RE027	Auxiliary Building
Steam Generator Blowdown Radiation Monitor	BDS-RE010	Turbine Building
Steam Generator Blowdown Radiation Monitor	BDS-RE011	Turbine Building
Component Cooling Water Radiation Monitor	CCS-RE001	Turbine Building
Main Steam Line Radiation Monitor	SGS-RY026	Auxiliary Building
Main Steam Line Radiation Monitor	SGS-RY027	Auxiliary Building
Service Water Blowdown Radiation Monitor	SWS-RE008	Turbine Building