

ATTACHMENT TO LICENSE AMENDMENT NO. 170

TO FACILITY COMBINED LICENSE NO. NPF-91

DOCKET NO. 52-025

Replace the following pages of the Facility Combined License No. NPF-91 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-91

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Appendix C to Facility Combined License No. NPF-91

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Appendix C to Facility Combined License No. NPF-91 (cont'd)

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(7) Reporting Requirements

- (a) Within 30 days of a change to the initial test program described in UFSAR 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. 170, 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	Not used per Amendment No. 170		
2	2.1.01.02	Not used per Amendment No. 113		
3	2.1.01.03	Not used per Amendment No. 85		
4	2.1.01.04	<p>2. The FHS has the refueling machine (RM), the fuel handling machine (FHM), and the new and spent fuel storage racks.</p> <p>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.</p> <p>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.</p> <p>6. The RM and FHM are designed to maintain their load carrying and structural integrity functions during a safe shutdown earthquake.</p> <p>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.</p>	<p>Inspection of the system will be performed.</p> <p>The RM and FHM/SFHT gripper assemblies will be tested by operating the open controls of the gripper while suspending a dummy fuel assembly.</p> <p>The RM and FHM will be tested by attempting to raise a dummy fuel assembly.</p> <p>i) Inspection will be performed to verify that the RM and FHM are located on the nuclear island.</p> <p>ii) Inspection will be performed to verify that the new and spent fuel storage racks are located on the nuclear island.</p>	<p>The FHS has the RM, the FHM, and the new and spent fuel storage racks.</p> <p>The RM and FHM/SFHT gripper assemblies will not open while suspending a dummy test assembly.</p> <p>The bottom of the dummy fuel assembly cannot be raised to within 24 ft, 6 in. of the operating deck floor.</p> <p>i) The RM and FHM are located on the nuclear island.</p> <p>ii) The new and spent fuel storage racks are located on the nuclear island.</p>
5	2.1.01.05	Not used per Amendment No. 113		
6	2.1.01.06.i	Not used per Amendment No. 113		
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 2.3.1-1			
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	Not used per Amendment No. 170		
279	2.3.01.02	Not used per Amendment No. 85		
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 2.3.2-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
284	2.3.02.01	Not used per Amendment No. 170		
285	2.3.02.02a	<p>2.a) The components identified in Table 2.3.2-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>2.b) The piping identified in Table 2.3.2-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.</p> <p>3.a) Pressure boundary welds in components identified in Table 2.3.2-1 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>3.b) Pressure boundary welds in piping identified in Table 2.3.2-2 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>4.a) The components identified in Table 2.3.2-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p> <p>4.b) The piping identified in Table 2.3.2-2 as ASME Code Section III retains its pressure boundary integrity at its design pressure.</p>	<p>Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.</p> <p>Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.</p> <p>A hydrostatic test will be performed on the components and piping required by the ASME Code Section III to be hydrostatically tested.</p>	<p>The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.2-1 and 2.3.2-2 as ASME Code Section III.</p> <p>A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.</p> <p>A report exists and concludes that the results of the hydrostatic test of the components and piping identified in Tables 2.3.2-1 and 2.3.2-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.</p>
286	2.3.02.02b	Not used per Amendment No. 85		
287	2.3.02.03a	Not used per Amendment No. 85		
288	2.3.02.03b	Not used per Amendment No. 85		
289	2.3.02.04a	Not used per Amendment No. 85		
290	2.3.02.04b	Not used per Amendment No. 85		

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	Not used per Amendment No. 170		
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. 113		

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	Not used per Amendment No. 170		
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. 85		
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. 113		
334	2.3.04.07	Not used per Amendment No. 113		

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	Not used per Amendment No. 170		
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.	<p>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.</p> <p>ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.</p> <p>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.</p>	<p>i) The seismic Category I equipment identified in Table 2.3.5-1 is located on the Nuclear Island.</p> <p>ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.</p> <p>iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.</p>
341	2.3.05.02.ii	Not used per Amendment No. 85		
342	2.3.05.02.iii	Not used per Amendment No. 85		
343	2.3.05.03a.i	3.a) The polar crane is single failure proof.	<p>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:</p> <ul style="list-style-type: none"> • 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.	<p>ii) Testing of the polar crane is performed.</p> <p>iii) Testing of the polar crane is performed.</p>	<p>ii) The polar crane shall be static-load tested to 125% of the rated load.</p> <p>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.</p>
345	2.3.05.03a.iii	Not used per Amendment No. 113		

Table 2.3.6-3			
Equipment Name	Tag No.	Display	Control Function
RNS Pump 1A (Motor)	RNS-MP-01A	Yes (Run Status)	Start
RNS Pump 1B (Motor)	RNS-MP-01B	Yes (Run Status)	Start
RNS Flow Sensor	RNS-01A	Yes	-
RNS Flow Sensor	RNS-01B	Yes	-
RNS Suction from Cask Loading Pit Isolation Valve (Position Indicator)	RNS-PL-V055	Yes	-
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057A	Yes	-
RNS Pump Miniflow Isolation Valve (Position Indicator)	RNS-PL-V057B	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.6-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
354	2.3.06.01	Not used per Amendment No. 170		
355	2.3.06.02a	<p>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.</p> <p>2.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.</p> <p>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.</p> <p>3.b) Pressure boundary welds in piping identified in Table 2.3.6-2 as ASME Code Section III meet ASME Code Section III requirements.</p>	<p>Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.</p> <p>Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.</p>	<p>The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.3.6-1 and 2.3.6-2 as ASME Code Section III.</p> <p>A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.</p>

Table 2.3.7-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
391	2.3.07.01	Not used per Amendment No. 170		
392	2.3.07.02a	<p>2.a) The components identified in Table 2.3.7-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>2.b) The piping lines identified in Table 2.3.7-2 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>3. Pressure boundary welds in piping lines identified in Table 2.3.7-2 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>4. The piping lines identified in Table 2.3.7-2 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p>	<p>Inspection will be conducted of the ASME as-built components and piping lines as documented in the ASME design reports.</p> <p>Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.</p> <p>A hydrostatic test will be performed on the piping lines required by the ASME Code Section III to be hydrostatically tested.</p>	<p>The ASME Code Section III design reports exist for the as-built components and piping lines identified in Tables 2.3.7-1 and 2.3.7-2 as ASME Code Section III.</p> <p>A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.</p> <p>A report exists and concludes that the results of the hydrostatic test of the piping lines identified in Table 2.3.7-2 as ASME Code Section III conform with the requirements of the ASME Code Section III.</p>
393	2.3.07.02b	Not used per Amendment No. 85		
394	2.3.07.03	Not used per Amendment No. 85		
395	2.3.07.04	Not used per Amendment No. 85		
396	2.3.07.05.i	5. The seismic Category I components identified in Table 2.3.7-1 can withstand seismic design basis loads without loss of safety functions.	<p>i) Inspection will be performed to verify that the seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island.</p> <p>ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.</p>	<p>i) The seismic Category I components identified in Table 2.3.7-1 are located on the Nuclear Island.</p> <p>ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.</p>

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	Not used per Amendment No. 170		
415	2.3.08.02.i	<p>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.</p> <p>3. Controls exist in the MCR to cause the components identified in Table 2.3.8-1 to perform the listed function.</p> <p>4. Displays of the parameters identified in Table 2.3.8-1 can be retrieved in the MCR.</p>	<p>i) Testing will be performed to confirm that the SWS can provide cooling water to the CCS heat exchangers.</p> <p>Testing will be performed on the components in Table 2.3.8-1 using controls in the MCR.</p> <p>Inspection will be performed for retrievability of parameters in the MCR.</p>	<p>i) Each SWS pump can provide at least 10,000 gpm of cooling water through its CCS heat exchanger.</p> <p>Controls in the MCR operate to cause the components listed in Table 2.3.8-1 to perform the listed functions.</p> <p>The displays identified in Table 2.3.8-1 can be retrieved in the MCR.</p>
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 2.3.9-2					
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	Not used per Amendment No. 170		
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. 113		

Table 2.3.10-2			
Line Name	Line No.	ASME Section III	Functional Capability Required
WLS Drain from PXS Compartment A	WLS-PL-L062	Yes	Yes
WLS Drain from PXS Compartment B	WLS-PL-L063	Yes	Yes
WLS Drain from CVS Compartment	WLS-PL-L061	Yes	Yes

Table 2.3.10-3			
Equipment Name	Tag No.	Display	Active Function
WLS Effluent Discharge Isolation Valve	WLS-PL-V223	-	Close
Reactor Coolant Drain Tank Level	WLS-JE-LT002	Yes	-
Letdown Flow from CVS to WLS	WLS-JE-FT020	Yes	-
WLS Auxiliary Building RCA Floodup Level Sensor	WLS-400A	Yes	-
WLS Auxiliary Building RCA Floodup Level Sensor	WLS-400B	Yes	-

Table 2.3.10-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
430	2.3.10.01	Not used per Amendment No. 170		
431	2.3.10.02a	2.a) The components identified in Table 2.3.10-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements. 2.b) The piping identified in Table 2.3.10-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.	Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.	The ASME Code Section III design report exists for the as built components and piping identified in Tables 2.3.10-1 and 2.3.10-2 as ASME Code Section III.

2.3.11 Gaseous Radwaste System

Design Description

The gaseous radwaste system (WGS) receives, processes, and discharges the radioactive waste gases received within acceptable off-site release limits during normal modes of plant operation including power generation, shutdown and refueling.

The WGS is as shown in Figure 2.3.11-1 and the component locations of the WGS are as shown in Table 2.3.11-3.

1. The functional arrangement of the WGS is as described in the Design Description of this Section 2.3.11.
2. The equipment identified in Table 2.3.11-1 can withstand the appropriate seismic design basis loads without loss of its structural integrity function.
3. The WGS provides the nonsafety-related functions of:
 - a. Processing radioactive gases prior to discharge.
 - b. Controlling the releases of radioactive materials in gaseous effluents.
 - c. The WGS is purged with nitrogen on indication of high oxygen levels in the system.

Table 2.3.11-1		
Equipment Name	Tag No.	Seismic Category I
WGS Activated Carbon Delay Bed A	WGS-MV-02A	No ⁽¹⁾
WGS Activated Carbon Delay Bed B	WGS-MV-02B	No ⁽¹⁾
WGS Discharge Isolation Valve	WGS-PL-V051	No

Note:

1. The WGS activated carbon delay beds (WGS-MV-02A and B) are designed to one-half SSE.

Table 2.3.11-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
449	2.3.11.01	Not used per Amendment No. 170		

2.3.12 Solid Radwaste System

Design Description

The solid radwaste system (WSS) receives, collects, and stores the solid radioactive wastes received prior to their processing and packaging by mobile equipment for shipment off-site.

The component locations of the WSS are as shown in Table 2.3.12-2.

1. The functional arrangement of the WSS is as described in the Design Description of this Section 2.3.12.
2. The WSS provides the nonsafety-related function of storing radioactive spent resins prior to processing or shipment.

Table 2.3.12-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
456	2.3.12.01	Not used per Amendment No. 170		
457	2.3.12.02	2. The WSS provides the nonsafety-related function of storing radioactive solids prior to processing or shipment.	Inspection will be performed to verify that the volume of each of the spent resin tanks, WSS-MV01A and WSS-MV01B, is at least 250 ft ³ .	A report exists and concludes that the volume of each of the spent resin tanks, WSS-MV01A and WSS-MV01B, is at least 250 ft ³ .

Table 2.3.12-2		
Component Name	Tag No.	Component Location
WSS Spent Resin Tank A	WSS-MV-01A	Auxiliary Building
WSS Spent Resin Tank B	WSS-MV-01B	Auxiliary Building

2.3.13 Primary Sampling System

Design Description

The primary sampling system collects samples of fluids in the reactor coolant system (RCS) and the containment atmosphere during normal operations.

The PSS is as shown in Figure 2.3.13-1. The PSS Grab Sampling Unit (PSS-MS-01) is located in the Auxiliary Building.

Table 2.3.13-2		
Equipment Name	Tag No.	Control Function
Hot Leg 1 Sample Isolation Valve	PSS-PL-V001A	Transfer Open/Transfer Closed
Hot Leg 2 Sample Isolation Valve	PSS-PL-V001B	Transfer Open/Transfer Closed

Table 2.3.13-3 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
458	2.3.13.01	Not used per Amendment No. 170		
459	2.3.13.02	<p>2. The components identified in Table 2.3.13-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>3. Pressure boundary welds in components identified in Table 2.3.13-1 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>4. The components identified in Table 2.3.13-1 as ASME Code Section III retain their pressure boundary integrity at their design pressure.</p>	<p>Inspection will be conducted of the as-built components as documented in the ASME design reports.</p> <p>Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.</p> <p>A hydrostatic test will be performed on the components required by the ASME Code Section III to be hydrostatically tested.</p>	<p>The ASME Code Section III design reports exist for the as-built components identified in Table 2.3.13-1 as ASME Code Section III.</p> <p>A report exists and concludes that the ASME Code Section III requirements are met for non-destructive examination of pressure boundary welds.</p> <p>A report exists and concludes that the results of the hydrostatic test of the components identified in Table 2.3.13-1 as ASME Code Section III conform with the requirements of the ASME Code Section III.</p>
460	2.3.13.03	Not used per Amendment No. 85		
461	2.3.13.04	Not used per Amendment No. 85		

2.3.14 Demineralized Water Transfer and Storage System

Design Description

The demineralized water transfer and storage system (DWS) receives water from the demineralized water treatment system (DTS), and provides a reservoir of demineralized water to supply the condensate storage tank and for distribution throughout the plant. Demineralized water is processed in the DWS to remove dissolved oxygen. In addition to supplying water for makeup of systems which require pure water, the demineralized water is used to sluice spent radioactive resins from the ion exchange vessels in the chemical and volume control system (CVS), the spent fuel pool cooling system (SFS), and the liquid radwaste system (WLS) to the solid radwaste system (WSS).

The component locations of the DWS are as shown in Table 2.3.14-3.

1. The functional arrangement of the DWS is as described in the Design Description of this Section 2.3.14.
2. The DWS provides the safety-related function of preserving containment integrity by isolation of the DWS lines penetrating the containment.
3. The DWS condensate storage tank (CST) provides the nonsafety-related function of water supply to the FWS startup feedwater pumps.
4. Displays of the parameters identified in Table 2.3.14-1 can be retrieved in the main control room (MCR).

Table 2.3.14-1			
Equipment Name	Tag No.	Display	Control Function
Condensate Storage Tank Water Level	DWS-006	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.14-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
477	2.3.14.01	Not used per Amendment No. 170		
478	2.3.14.02	Not used per Amendment No. 85		

3. Displays of the parameters identified in Table 2.3.15-1 can be retrieved in the main control room (MCR).

Table 2.3.15-1			
Equipment Name	Tag No.	Display	Control Function
Instrument Air Pressure	CAS-011	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.3.15-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
481	2.3.15.01	Not used per Amendment No. 170		
482	2.3.15.02	Not used per Amendment No. 85		
483	2.3.15.03	3. Displays of the parameters identified in Table 2.3.15-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of parameters in the MCR.	The displays identified in Table 2.3.15-1 can be retrieved in the MCR.

Table 2.3.15-3		
Component Name	Tag No.	Component Location
Instrument Air Compressor Package A	CAS-MS-01A	Turbine Building
Instrument Air Compressor Package B	CAS-MS-01B	Turbine Building
Instrument Air Dryer Package A	CAS-MS-02A	Turbine Building
Instrument Air Dryer Package B	CAS-MS-02B	Turbine Building
Service Air Compressor Package A	CAS-MS-03A	Turbine Building
Service Air Compressor Package B	CAS-MS-03B	Turbine Building
Service Air Dryer Package A	CAS-MS-04A	Turbine Building
Service Air Dryer Package B	CAS-MS-04B	Turbine Building
High Pressure Air Compressor and Filter Package	CAS-MS-05	Turbine Building

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	Not used per Amendment No. 170		
489	2.3.29.02	<p>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.</p> <p>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.</p>	<p>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.</p> <p>A test is performed by pouring water into the auxiliary building chemical laboratory and the decontamination solution drains in the annex building.</p>	<p>The water poured into these drains is collected either in the auxiliary building radioactive drains sump or the WLS waste holdup tanks.</p> <p>The water poured into these drains is collected in the chemical waste tank of the liquid radwaste system.</p>
490	2.3.29.03	Not used per Amendment No. 113		
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	Not used per Amendment No. 170		
493	2.4.01.02	<p>2. The FWS provides startup feedwater flow from the CST to the SGS for heat removal from the RCS.</p> <p>3. Controls exist in the MCR to cause the components identified in Table 2.4.1-1 to perform the listed function.</p> <p>4. Displays of the parameters identified in Table 2.4.1-1 can be retrieved in the MCR.</p>	<p>Testing will be performed to confirm that each of the startup feedwater pumps can provide water from the CST to both steam generators.</p> <p>Testing will be performed on the components in Table 2.4.1-1 using controls in the MCR.</p> <p>Inspection will be performed for retrievability of parameters in the MCR.</p>	<p>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.</p> <p>Controls in the MCR operate to cause the components listed in Table 2.4.1-1 to perform the listed functions.</p> <p>The displays identified in Table 2.4.1-1 can be retrieved in the MCR.</p>
494	2.4.01.03	Not used per Amendment No. 113		
495	2.4.01.04	Not used per Amendment No. 113		

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% ($\pm 1\%$ 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	Not used per Amendment No. 170		
497	2.4.02.02a	<p>2.a) Controls exist in the MCR to trip the main turbine-generator.</p> <p>2.c) The main turbine-generator trips after receiving a signal from the DAS.</p> <p>3) The trip signals from the two turbine electrical overspeed protection trip systems are isolated from, and independent of, each other.</p>	<p>Testing will be performed on the main turbine-generator using controls in the MCR.</p> <p>Testing will be performed using real or simulated signals into the DAS.</p> <p>ii) Testing of the as-built system will be performed using simulated signals from the turbine speed sensors.</p>	<p>Controls in the MCR operate to trip the main turbine-generator.</p> <p>The main turbine-generator trips after receiving a signal from the DAS.</p> <p>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.</p>

Table 2.4.6-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
503	2.4.06.01	Not used per Amendment No. 170		
504	2.4.06.02	2. Displays of the parameters identified in Table 2.4.6-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.4.6-1 can be retrieved in the MCR.

Table 2.4.6-3	
Component Name	Component Location
Low Pressure Feedwater Heaters	Turbine Building
Deaerator Feedwater Heater and Storage Tank	Turbine Building
Main Condenser Shell A	Turbine Building
Main Condenser Shell B	Turbine Building
Main Condenser Shell C	Turbine Building
Condensate Pump A	Turbine Building
Condensate Pump B	Turbine Building
Condensate Pump C	Turbine Building

2.4.7 Circulating Water System

No entry for this system.

2.4.8 Auxiliary Steam Supply System

No entry for this system.

2.4.9 Condenser Tube Cleaning System

No entry for this system.

2.4.10 Turbine Island Chemical Feed System

No entry for this system.

2.4.11 Condensate Polishing System

No entry for this system.

- b) The Class 1E cables between the Incore Thermocouple elements and the connector boxes located on the integrated head package have sheaths.
 - c) For cables other than those covered by 3.b, separation is provided between IIS Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.
4. Safety-related displays of the parameters identified in Table 2.5.5-1 can be retrieved in the main control room (MCR).

Table 2.5.5-1					
Equipment Name	Seismic Cat. I	ASME Code Classification	Class 1E	Qual. for Harsh Envir.	Safety-Related Display
Incore Thimble Assemblies (at least three assemblies in each core quadrant)	Yes	—	Yes ⁽¹⁾	Yes ⁽¹⁾	Core Exit Temperature ⁽¹⁾

Note: Dash (-) indicates not applicable.

1. Only applies to the safety-related assemblies. There are at least two safety-related assemblies in each core quadrant.

Table 2.5.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
564	2.5.05.01	Not used per Amendment No. 170		
565	2.5.05.02.i	2. The seismic Category I equipment identified in Table 2.5.5-1 can withstand seismic design basis dynamic loads without loss of safety function.	i) Inspection will be performed to verify that the seismic Category I equipment identified in Table 2.5.5-1 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.	i) The seismic Category I equipment identified in Table 2.5.5-1 is located on the Nuclear Island. ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis dynamic loads without loss of safety function.

2.5.6 Special Monitoring System

Design Description

The special monitoring system (SMS) monitors the reactor coolant system (RCS) for the occurrence of impacts characteristic of metallic loose parts. Metal impact monitoring sensors are provided to monitor the RCS at the upper and lower head region of the reactor pressure vessel, and at the reactor coolant inlet region of each steam generator.

1. The functional arrangement of the SMS is as described in the Design Description of this Section 2.5.6.
2. Data obtained from the metal impact monitoring sensors can be retrieved in the main control room (MCR).

Table 2.5.6-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
573	2.5.06.01	Not used per Amendment No. 170		
574	2.5.06.02	2. Data obtained from the metal impact monitoring sensors can be retrieved in the MCR.	Inspection will be performed for retrievability of data from the metal impact monitoring sensors in the MCR.	Data obtained from the metal impact monitoring sensors can be retrieved in the MCR.

2.5.7 Operation and Control Centers System

No ITAAC for this system.

2.5.8 Radiation Monitoring System

No entry. Radiation monitoring function covered in Section 3.5, Radiation Monitoring.

2.5.9 Seismic Monitoring System

Design Description

The seismic monitoring system (SJS) provides for the collection of seismic data in digital format, analysis of seismic data, notification of the operator if the ground motion exceeds a threshold value, and notification of the operator (after analysis of data) that a predetermined cumulative absolute velocity (CAV) has been exceeded. The SJS has at least four triaxial acceleration sensor units and a time-history analyzer and recording system. The time-history analyzer and recording system are located in the auxiliary building.

1. The functional arrangement of the SJS is as described in the Design Description of this Section 2.5.9.
2. The SJS can compute CAV and the 5 percent of critical damping response spectrum for frequencies between 1 and 10 Hertz.
3. The SJS has a dynamic range of 0.001g to 1.0g and a frequency range of 0.2 to 50 Hertz.

Table 2.5.9-1 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
575	2.5.09.01	Not used per Amendment No. 170		
576	2.5.09.02	2. The SJS can compute CAV and the 5 percent of critical damping response spectrum for frequencies between 1 and 10 Hz.	Type tests using simulated input signals, analyses, or a combination of type tests and analyses, of the SJS time-history analyzer and recording system will be performed.	A report exists and concludes that the SJS time-history analyzer and recording system can record data at a sampling rate of at least 200 samples per second, that the pre-event recording time is adjustable from less than or equal to 1.2 seconds to greater than or equal to 15.0 seconds, and that the initiation value is adjustable from less than or equal to 0.002g to greater than or equal to 0.02g.
577	2.5.09.03	3. The SJS has a dynamic range of 0.001g to 1.0g and a frequency range of 0.2 to 50 Hertz.	Type tests, analyses, or a combination of type tests and analyses, of the SJS triaxial acceleration sensors will be performed.	A report exists and concludes that the SJS triaxial acceleration sensors have a dynamic range of at least 0.001g to 1.0g and a frequency range of at least 0.2 to 50 Hertz.

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	Not used per Amendment No. 170		
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.	<p>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.</p> <p>ii) Type tests, analyses, or a combination of type tests and analyses of seismic Category I equipment will be performed.</p> <p>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.</p>	<p>i) The seismic Category I equipment identified in Table 2.6.1-1 is located on the Nuclear Island.</p> <p>ii) A report exists and concludes that the seismic Category I equipment can withstand seismic design basis loads without loss of safety function.</p> <p>iii) A report exists and concludes that the as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.</p>
580	2.6.01.02.ii	Not used per Amendment No. 85		
581	2.6.01.02.iii	Not used per Amendment No. 85		
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. 85		
584	2.6.01.04a	Not used per Amendment No. 113		
585	2.6.01.04b	Not used per Amendment No. 85		

2.6.4 Onsite Standby Power System

Design Description

The onsite standby power system (ZOS) provides backup ac electrical power for nonsafety-related loads during normal and off-normal conditions.

The ZOS has two standby diesel generator units and the component locations of the ZOS are as shown in Table 2.6.4-2. The centerline of the diesel engine exhaust gas discharge is located more than twenty (20) feet higher than that of the combustion air intake.

1. The functional arrangement of the ZOS is as described in the Design Description of this Section 2.6.4.
2. The ZOS provides the following nonsafety-related functions:
 - 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.
 - b) Each diesel generator unit is sized to supply power to the selected nonsafety-related electrical components.
 - c) Automatic-sequence loads are sequentially loaded on the associated buses.
3. Displays of diesel generator status (running/not running) and electrical output power (watts) can be retrieved in the main control room (MCR).
4. Controls exist in the MCR to start and stop each diesel generator.

Table 2.6.4-1

Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
621	2.6.04.01	Not used per Amendment No. 170		

Table 2.7.1-3			
Equipment	Tag No.	Display	Control Function
Division "B" and "D" Class 1E Electrical Room AHU D Fans	VBS-MA-05D VBS-MA-06D	Yes (Run Status)	Start
Division "A" and "C" Class 1E Battery Room Exhaust Fans	VBS-MA-07A VBS-MA-07C	Yes (Run Status)	Start
Division "B" and "D" Class 1E Battery Room Exhaust Fans	VBS-MA-07B VBS-MA-07D	Yes (Run Status)	Start
MCR Ancillary Fans	VBS-MA-10A VBS-MA-10B	No	-
Division B Room Ancillary Fan	VBS-MA-11	No	-
Division C Room Ancillary Fan	VBS-MA-12	No	-

Table 2.7.1-4 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
677	2.7.01.01	Not used per Amendment No. 170		
678	2.7.01.02a	<p>2.a) The components identified in Table 2.7.1-1 as ASME Code Section III are designed and constructed in accordance with ASME Code Section III requirements.</p> <p>2.b) The piping identified in Table 2.7.1-2 as ASME Code Section III is designed and constructed in accordance with ASME Code Section III requirements.</p> <p>3.a) Pressure boundary welds in components identified in Table 2.7.1-1 as ASME Code Section III meet ASME Code Section III requirements.</p> <p>3.b) Pressure boundary welds in piping identified in Table 2.7.1-2 as ASME Code Section III meet ASME Code Section III requirements.</p>	<p>Inspection will be conducted of the as-built components and piping as documented in the ASME design reports.</p> <p>Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.</p>	<p>The ASME Code Section III design reports exist for the as-built components and piping identified in Tables 2.7.1-1 and 2.7.1-2 as ASME Code Section III.</p> <p>A report exists and concludes that the ASME Code Section III requirements are met for nondestructive examination of pressure boundary welds.</p>

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	Not used per Amendment No. 170																
702	2.7.02.02	Not used per Amendment No. 85																
703	2.7.02.03a	<p>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.</p> <p>4. Controls exist in the MCR to cause the components identified in Table 2.7.2-1 to perform the listed function.</p> <p>5. Displays of the parameters identified in Table 2.7.2-1 can be retrieved in the MCR.</p>	<p>Testing will be performed by measuring the flow rates to the chilled water cooling coils.</p> <p>Testing will be performed on the components in Table 2.7.2-1 using controls in the MCR.</p> <p>Inspection will be performed for retrievability of parameters in the MCR.</p>	<p>The water flow to each cooling coil equals or exceeds the following:</p> <table><tr><td><u>Coil</u></td><td><u>Flow (gpm)</u></td></tr><tr><td>VBS MY C01A/B</td><td>96</td></tr><tr><td>VBS MY C02A/C</td><td>97</td></tr><tr><td>VBS MY C02B/D</td><td>52</td></tr><tr><td>VAS MY C07A/B</td><td>12.3</td></tr><tr><td>VAS MY C12A/B</td><td>8.2</td></tr><tr><td>VAS MY C06A/B</td><td>8.2</td></tr></table> <p>Controls in the MCR operate to cause the components listed in Table 2.7.2-1 to perform the listed functions.</p> <p>The displays identified in Table 2.7.2-1 can be retrieved in the MCR.</p>	<u>Coil</u>	<u>Flow (gpm)</u>	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
<u>Coil</u>	<u>Flow (gpm)</u>																	
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																	

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	Not used per Amendment No. 170		
708	2.7.03.02a	Not used per Amendment No. 85		
709	2.7.03.02b	Not used per Amendment No. 85		
710	2.7.03.03	<p>3. Controls exist in the MCR to cause the components identified in Table 2.7.3-1 to perform the listed function.</p> <p>4. Displays of the parameters identified in Table 2.7.3-1 can be retrieved in the MCR.</p>	<p>Testing will be performed on the components in Table 2.7.3-1 using controls in the MCR.</p> <p>Inspection will be performed for retrievability of the parameters in the MCR.</p>	<p>Controls in the MCR operate to cause the components listed in Table 2.7.3-1 to perform the listed functions.</p> <p>The displays identified in Table 2.7.3-1 can be retrieved in the MCR.</p>
711	2.7.03.04	Not used per Amendment No. 113		

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	Not used per Amendment No. 170		
713	2.7.04.02a	Not used per Amendment No. 85		
714	2.7.04.02b	Not used per Amendment No. 85		
715	2.7.04.02c	Not used per Amendment No. 85		
716	2.7.04.03	<p>3. Controls exist in the MCR to cause the components identified in Table 2.7.4-1 to perform the listed function.</p> <p>4. Displays of the parameters identified in Table 2.7.4-1 can be retrieved in the MCR.</p>	<p>Testing will be performed on the components in Table 2.7.4-1 using controls in the MCR.</p> <p>Inspection will be performed for retrievability of the parameters in the MCR.</p>	<p>Controls in the MCR operate to cause the components listed in Table 2.7.4-1 to perform the listed functions.</p> <p>The displays identified in Table 2.7.4-1 can be retrieved in the MCR.</p>
717	2.7.04.04	Not used per Amendment No. 113		

2.7.5 Radiologically Controlled Area Ventilation System

Design Description

The radiologically controlled area ventilation system (VAS) serves the fuel handling area of the auxiliary building, and the radiologically controlled portions of the auxiliary and annex buildings, except for the health physics and hot machine shop areas, which are provided with a separate ventilation system (VHS). The VAS consists of two subsystems: the auxiliary/annex building ventilation subsystem and the fuel handling area ventilation subsystem. The subsystems provide ventilation to maintain occupied areas, and access and equipment areas within their design temperature range. They provide outside air for plant personnel and prevent the unmonitored release of airborne radioactivity to the atmosphere or adjacent plant areas. The VAS automatically isolates selected building areas by closing the supply and exhaust duct isolation dampers and starts the containment air filtration system (VFS) when high airborne radioactivity in the exhaust air duct or high ambient pressure differential is detected.

The component locations of the VAS are as shown in Table 2.7.5-3.

1. The functional arrangement of the VAS is as described in the Design Description of this Section 2.7.5.
2. The VAS maintains each building area at a slightly negative pressure relative to the atmosphere or adjacent clean plant areas.
3. Displays of the parameters identified in Table 2.7.5-1 can be retrieved in the main control room (MCR).

Table 2.7.5-1			
Equipment	Tag No.	Display	Control Function
Fuel Handling Area Pressure Differential Indicator	VAS-030	Yes	-
Annex Building Pressure Differential Indicator	VAS-032	Yes	-
Auxiliary Building Pressure Differential Indicator	VAS-033	Yes	-
Auxiliary Building Pressure Differential Indicator	VAS-034	Yes	-

Note: Dash (-) indicates not applicable.

Table 2.7.5-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
718	2.7.05.01	Not used per Amendment No. 170		

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	Not used per Amendment No. 170		
724	2.7.06.02.i	Not used per Amendment No. 85		
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.

2.7.7 Containment Recirculation Cooling System

Design Description

The containment recirculation cooling system (VCS) controls the containment air temperature and humidity during normal operation, refueling and shutdown.

The locations of the VCS are as shown in Table 2.7.7-3.

1. The functional arrangement of the VCS is as described in the Design Description of this Section 2.7.7.
2. Displays of the parameters identified in Table 2.7.7-1 can be retrieved in the main control room (MCR).

Table 2.7.7-1		
Equipment Name	Tag No.	Display
Containment Temperature Channel	VCS-061	Yes
Containment Fan Cooler Fan	VCS-MA-01A VCS-MA-01C VCS-MA-01B VCS-MA-01D	Yes (Run Status) Yes (Run Status) Yes (Run Status) Yes (Run Status)

Note: Dash (-) indicates not applicable.

Table 2.7.7-2 Inspections, Tests, Analyses, and Acceptance Criteria				
No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
731	2.7.07.01	Not used per Amendment No. 170		
732	2.7.07.02	2. Displays of the parameters identified in Table 2.7.7-1 can be retrieved in the MCR.	Inspection will be performed for retrievability of the parameters in the MCR.	The displays identified in Table 2.7.7-1 are retrieved in the MCR.