ATTACHMENT TO LICENSE AMENDMENT NO. 15

TO FACILITY COMBINED LICENSE NO. NPF-93

DOCKET NO. 52-027

Replace the following pages of the Facility Combined License No. NPF-93 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-93

REMOVE	INSERT
7	7

Facility Combined License No. NPF-93
Appendix C - Inspections, Tests, Analyses and Acceptance Criteria

REMOVE	INSERT
C-46	C-46
C-47	C-47
C-120	C-120
C-138	C-138
C-181	C-181
C-252	C-252
C-344	C-344
C-355	C-355
C-356	C-356
C-370	C-370
C-401	C-401
C-428	C-428
C-431	C-431
C-432	C-432
C-433	C-433
C-442	C-442
C-443	C-443
C-446	C-446
C-447	C-447

(b) SCE&G 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. 15, 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

SCE&G shall implement the programs or portions of programs identified below, on or before the date SCE&G 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 of byproduct or special nuclear materials that are not fuel (excluding exempt quantities as described in 10 CFR 30.18);

2. The fire protection measures in accordance with RG 1.189 for areas containing new fuel (including adjacent areas where a fire could affect the new fuel) implemented before receipt of fuel onsite;

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	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.
3	2.1.01.03	3. The FHS preserves containment integrity by isolation of the fuel transfer tube penetrating containment.	See ITAAC Table 2.2.1-3, items 1 and 7.	See ITAAC Table 2.2.1-3, items 1 and 7.
4	2.1.01.04	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	2.1.01.05	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	2.1.01.06.i	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	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.
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.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
9	2.1.01.07.ii	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.
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 2.2.3-1									
Equipment Name	**Tag No.**	**ASME Code Section III**	**Seismic Cat. I**	**Remotely Operated Valve**	**Class 1E/ Qual. Harsh Envir.**	**Safety-Related Display**	**Control PMS/ DAS**	**Active Function**	**Loss of Motive Power Position**
PRHR HX Control Valve	PXS-PL-V108A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	Open
PRHR HX Control Valve	PXS-PL-V108B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	Open
Containment Recirculation A Isolation Motor-operated Valve	PXS-PL-V117A	Yes	Yes	Yes	Yes/Yes	Yes (position)	Yes/No	None	As Is
Containment Recirculation B Isolation Motor-operated Valve	PXS-PL-V117B	Yes	Yes	Yes	Yes/Yes	Yes (position)	Yes/No	None	As Is
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation A Check Valve	PXS-PL-V119A	Yes	Yes	No	- / -	No	- / -	Transfer Open/ Transfer Closed	-
Containment Recirculation B Check Valve	PXS-PL-V119B	Yes	Yes	No	- / -	No	- / -	Transfer Open/ Transfer Closed	-
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
197	2.2.03.08c.xii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xii) Inspections will be conducted of the CMT level sensors (PXS-11A/B/D/C, -12A/B/C/D, - 13A/B/C/D, -14A/B/C/D) upper level tap lines.	xii) Each upper level tap line has a downward slope of ≥ 2.4 degrees from the centerline of the connection to the CMT to the centerline of the connection to the standpipe.
198	2.2.03.08c.xiii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xiii) Inspections will be conducted of the surfaces in the vicinity of the containment recirculation screens. The surfaces in the vicinity of the containment recirculation screens are the surfaces located above the bottom of the recirculation screens up to and including the bottom surface of the plate discussed in Table 2.2.3-4, item 8.c.vii, out at least 10 feet perpendicular to and at least 7 feet perpendicular to the side of the screen face.	xiii) These surfaces are stainless steel.
199	2.2.03.08c.xiv	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xiv) Inspections will be conducted of the exposed surfaces of the source range, intermediate range, and power range detectors.	xiv) These surfaces are made of stainless steel or titanium.
200	2.2.03.08d	8.d) The PXS provides pH adjustment of water flooding the containment following design basis accidents.	Inspections of the pH adjustment baskets will be conducted.	pH adjustment baskets exist, with a total calculated volume ≥ 560 ft^3. The pH baskets are located below plant elevation 107 ft, 2 in.
201	2.2.03.09a.i	9.a) The PXS provides a function to cool the outside of the reactor vessel during a severe accident.	i) A flow test and analysis for each IRWST drain line to the containment will be conducted. The test is initiated by opening isolation valves in each line. Test fixtures may be used to simulate squib valves.	i) The calculated flow resistance for each IRWST drain line between the IRWST and the containment is $\leq 4.07 \times 10^{-6}$ ft/gpm^2.

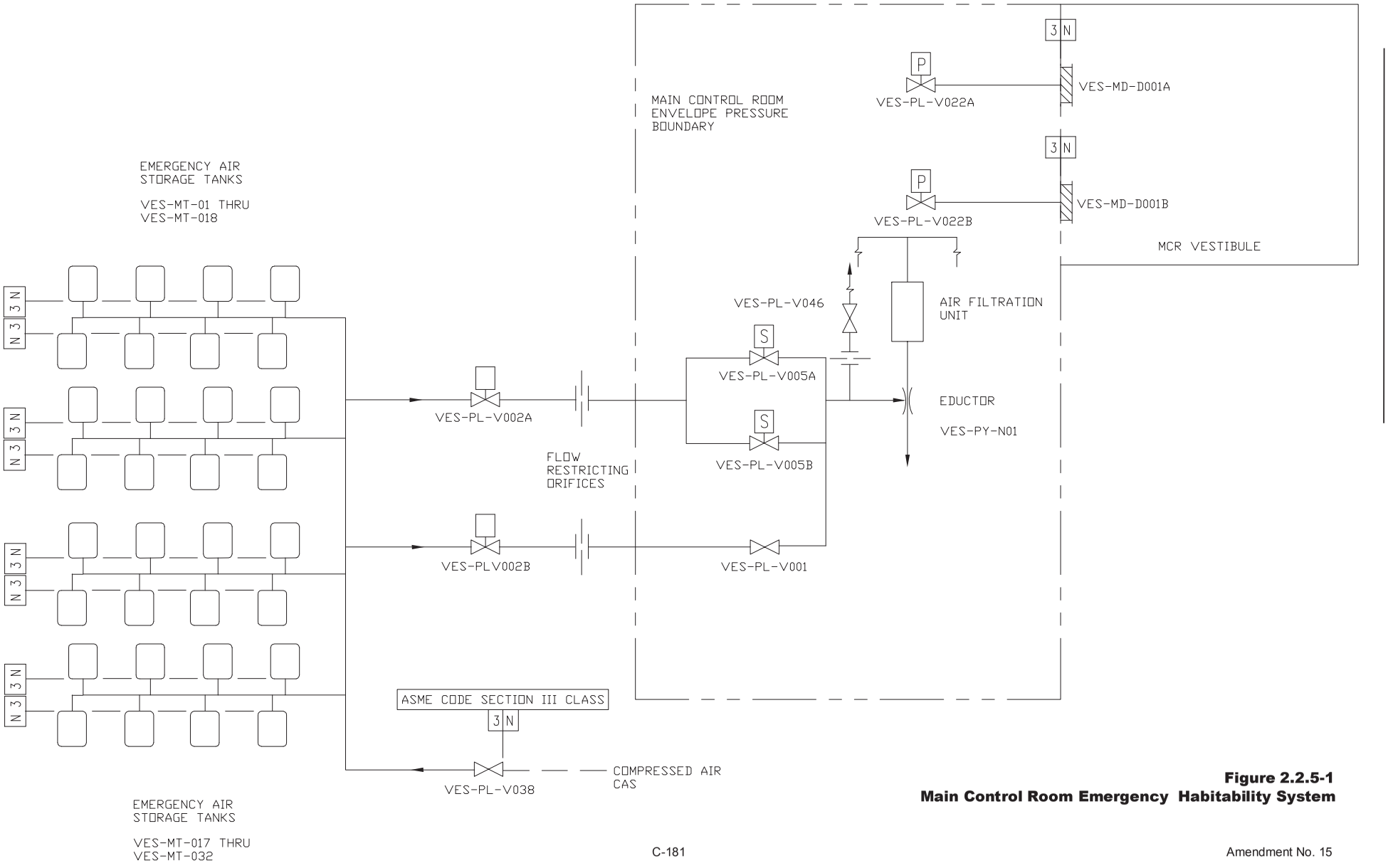

Figure 2.2.5-1
Main Control Room Emergency Habitability System

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**	**Control 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	-

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	1. The functional arrangement of the WLS is as described in the Design Description of this Section 2.3.10.	Inspection of the as-built system will be performed.	The as-built WLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.10.
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.	Inspection will be conducted of the as-built components as documented in the ASME design reports.	The ASME Code Section III design report exists for the as built components identified in Table 2.3.10-1 as ASME Code Section III.
432	2.3.10.02b	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 piping as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built piping identified in Table 2.3.10-2 as ASME Code Section III.
433	2.3.10.03a	3.a) Pressure boundary welds in components identified in Table 2.3.10-1 as ASME Code Section III meet ASME Code Section III requirements.	Inspection of the as-built pressure boundary welds will be performed in accordance with the 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.

Table 2.6.3-4		
Component Name	**Tag No.**	**Component Location**
Division B 250 Vdc Distribution Panel	IDSB-DD-1	Auxiliary Building
Division C 250 Vdc Distribution Panel	IDSC-DD-1	Auxiliary Building
Division D 250 Vdc Distribution Panel	IDSD-DD-1	Auxiliary Building
Division A 120 Vac Distribution Panel 1	IDSA-EA-1	Auxiliary Building
Division A 120 Vac Distribution Panel 2	IDSA-EA-2	Auxiliary Building
Division B 120 Vac Distribution Panel 1	IDSB-EA-1	Auxiliary Building
Division B 120 Vac Distribution Panel 2	IDSB-EA-2	Auxiliary Building
Division B 120 Vac Distribution Panel 3	IDSB-EA-3	Auxiliary Building
Division C 120 Vac Distribution Panel 1	IDSC-EA-1	Auxiliary Building
Division C 120 Vac Distribution Panel 2	IDSC-EA-2	Auxiliary Building
Division C 120 Vac Distribution Panel 3	IDSC-EA-3	Auxiliary Building
Division D 120 Vac Distribution Panel 1	IDSD-EA-1	Auxiliary Building
Division D 120 Vac Distribution Panel 2	IDSD-EA-2	Auxiliary Building
Division A Fuse Panel 4	IDSA-EA-4	Auxiliary Building
Division B Fuse Panel 4	IDSB-EA-4	Auxiliary Building
Division B Fuse Panel 5	IDSB-EA-5	Auxiliary Building
Division B Fuse Panel 6	IDSB-EA-6	Auxiliary Building
Division C Fuse Panel 4	IDSC-EA-4	Auxiliary Building
Division C Fuse Panel 5	IDSC-EA-5	Auxiliary Building
Division C Fuse Panel 6	IDSC-EA-6	Auxiliary Building
Division D Fuse Panel 4	IDSD-EA-4	Auxiliary Building
Division A Fused Transfer Switch Box 1	IDSA-DF-1	Auxiliary Building
Division B Fused Transfer Switch Box 1	IDSB-DF-1	Auxiliary Building
Division B Fused Transfer Switch Box 2	IDSB-DF-2	Auxiliary Building
Division C Fused Transfer Switch Box 1	IDSC-DF-1	Auxiliary Building
Division C Fused Transfer Switch Box 2	IDSC-DF-2	Auxiliary Building
Division D Fused Transfer Switch Box 1	IDSD-DF-1	Auxiliary Building
Spare Fused Transfer Switch Box 1	IDSS-DF-1	Auxiliary Building
Spare Battery 125/240 Vdc Disconnect Switch	IDSS-SW-1	Auxiliary Building
Division A 250 Vdc MCC	IDSA-DK-1	Auxiliary Building

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.
638	2.6.06.01.ii	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.	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.

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	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.	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.
640	2.6.06.01.iv	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.	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.

2.6.7 Special Process Heat Tracing System

No entry for this system.

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	Run
Division B Room Ancillary Fan	VBS-MA-11	No	Run
Division C Room Ancillary Fan	VBS-MA-12	No	Run

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	1. The functional arrangement of the VBS is as described in the Design Description of this subsection 2.7.1	Inspection of the as-built system will be performed.	The as-built VBS conforms with the functional arrangement described in the Design Description of this subsection 2.7.1.
678	2.7.01.02a	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.	Inspection will be conducted of the as-built components as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built components identified in Table 2.7.1-1 as ASME Code Section III.
679	2.7.01.02b	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.	Inspection will be conducted of the as-built piping as documented in the ASME design reports.	The ASME code Section III design reports exist for the as-built piping identified in Table 2.7.1-2 as ASME Code Section III.
680	2.7.01.03a	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.	Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	A report exists and concludes that the ASME Code Section III requirements are met for nondestructive examination of pressure boundary welds.

The MCR provides a facility and resources for the safe control and operation of the plant. The MCR includes a minimum inventory of displays, visual alerts and fixed-position controls. Refer to item 8.a and Table 2.5.2-5 of subsection 2.5.2 for this minimum inventory.

The remote shutdown room (RSR) provides a facility and resources to establish and maintain safe shutdown conditions for the plant from a location outside of the MCR. The RSW includes a minimum inventory of displays, controls, and visual alerts. Refer to item 2 and Table 2.5.4-1 of subsection 2.5.4 for this minimum inventory. As stated in item 8.b of subsection 2.5.2, the protection and safety monitoring system (PMS) provides for the transfer of control capability from the MCR to the RSW.

The mission of local control stations is to provide the resources, outside of the MCR, for operations personnel to perform monitoring and control activities.

Implementation of the HFE program includes activity 1 below. The MCR includes design features specified by items 2 through 4 below. The RSW includes the design features specified by items 5 through 8 below. Local control stations include the design feature of item 9.

1. The HFE program verification and validation implementation plans are developed in accordance with the programmatic level description of the AP1000 human factors verification and validation plan. The implementation plans establish the methods for conducting evaluations of the integrated HSI design. The development of the HFE verification and validation plans are complete. The following documents were developed:
   a) HSI task support verification – APP-OCS-GEH-220, “AP1000 Human Factors Engineering Task Support Verification Plan,” Westinghouse Electric Company LLC
   b) HFE design verification – APP-OCS-GEH-120, “AP1000 Human Factors Engineering Design Verification Plan,” Westinghouse Electric Company LLC
   c) Integrated system validation – APP-OCS-GEH-320, “AP1000 Human Factors Engineering Integrated System Validation Plan,” Westinghouse Electric Company LLC
   d) Issue resolution verification – APP-OCS-GEH-420, “AP1000 Human Factors Engineering Discrepancy Resolution Process,” Westinghouse Electric Company LLC
   e) Plant HFE/HSI (as designed at the time of plant startup) verification – APP-OCS-GEH-520, “AP1000 Plant Startup Human Factors Engineering Design Verification Plan,” Westinghouse Electric Company LLC
2. The MCR includes reactor operator workstations, supervisor workstation(s), safety-related displays, and safety-related controls.
3. The MCR provides a suitable workspace environment for use by MCR operators.
4. The HSI resources available to the MCR operators include the alarm system, plant information system (nonsafety-related displays), wall panel information system, nonsafety-related controls (soft and dedicated), and computerized procedure system.
5. The RSW includes reactor operator workstation(s) from which licensed operators perform remote shutdown operations.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
786	3.3.00.05c	5.c) The boundaries between the following rooms, which contain safety-related equipment – PXS valve/accumulator room A (11205), PXS valve/accumulator room B (11207), and CVS room (11209) – are designed to prevent flooding between these rooms.	An inspection of the boundaries between the following rooms which contain safety-related equipment – PXS Valve/ Accumulator Room A (11205), PXS Valve/Accumulator Room B (11207), and CVS Room (11209) – will be performed.	A report exists that confirms that flooding of the PXS Valve/ Accumulator Room A (11205), and the PXS Valve/Accumulator Room B (11207) is prevented to a maximum flood level as follows: PXS A 110'-2", PXS B 110'-1"; and of the CVS room (11209) to a maximum flood level of 110'-0".
787	3.3.00.06a	6.a) The available room volumes of the radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" exceed the volume of the liquid radwaste storage tanks (WLS-MT-05A, MT-05B, MT-06A, MT-06B, MT-07A, MT-07B, MT-07C, MT-11).	An inspection will be performed of the as-built radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" to define volume.	A report exists and concludes that the as-built available room volumes of the radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" exceed the volume of the liquid radwaste storage tanks (WLS-MT-05A, MT-05B, MT-06A, MT-06B, MT-07A, MT-07B, MT-07C, MT-11).
788	3.3.00.06b	6.b) The radwaste building package waste storage room has a volume greater than or equal to 1293 cubic feet.	An inspection of the radwaste building packaged waste storage room (50352) is performed.	The volume of the radwaste building packaged waste storage room (50352) is greater than or equal to 1293 cubic feet.
789	3.3.00.07aa	7.a) Class 1E electrical cables, communication cables associated with only one division, and raceways are identified according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and raceways will be conducted.	a) Class 1E electrical cables, and communication cables inside containment associated with only one division, and raceways are identified by the appropriate color code.
790	3.3.00.07ab	7.a) Class 1E electrical cables, communication cables associated with only one division, and raceways are identified according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and raceways will be conducted.	b) Class 1E electrical cables, and communication cables in the non-radiologically controlled area of the auxiliary building associated with only one division, and raceways are identified by the appropriate color code.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
800	3.3.00.07d.ii.a	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.a) Within other plant areas inside containment (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
801	3.3.00.07d.ii.b	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.b) Within other plant areas inside the non-radiologically controlled area of the auxiliary building (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables < 2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
802	3.3.00.07d.ii.c	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.c) Within other plant areas inside the radiologically controlled area of the auxiliary building (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables < 2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

1. The seismic Category I equipment identified in Table 3.5-1 can withstand seismic design basis loads without loss of safety function.
2. The Class 1E equipment identified in Table 3.5-1 as being qualified for a harsh environment can withstand the 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.
3. Separation is provided between system Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.
4. Safety-related displays identified in Table 3.5-1 can be retrieved in the main control room (MCR).
5. The process radiation monitors listed in Table 3.5-2 are provided.
6. The effluent radiation monitors listed in Table 3.5-3 are provided.
7. The airborne radiation monitors listed in Table 3.5-4 are provided.
8. The area radiation monitors listed in Table 3.5-5 are provided.

Table 3.5-1

Equipment Name	Tag No.	Seismic Cat. I	Class 1E	Qual. for Harsh Envir.	Safety-Related Display
Containment High Range Monitor	PXS-RE160	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE161	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE162	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE163	Yes	Yes	Yes	Yes
MCR Radiation Monitoring Package A(1)	VBS-JS01A	Yes	Yes	No	No
MCR Radiation Monitoring Package B(1)	VBS-JS01B	Yes	Yes	No	No
Containment Atmosphere Monitor (Gaseous)	PSS-RE026	Yes	No	No	No
Containment Atmosphere Monitor (particulate, for RCS pressure boundary leakage detection)	PSS-RE027	Yes	No	No	No

Notes: (1) Each MCR Radiation Monitoring Package includes particulate, iodine and gaseous radiation monitors.

Table 3.5-2 Process Radiation Monitors	
Equipment List	**Equipment No.**
Steam Generator Blowdown	BDS-RE010
Steam Generator Blowdown	BDS-RE011
Component Cooling Water	CCS-RE001
Main Steam Line(1)	SGS-RY026
Main Steam Line(1)	SGS-RY027
Service Water Blowdown	SWS-RE008
Primary Sampling System Liquid Sample	PSS-RE050
Primary Sampling System Gaseous Sample	PSS-RE052
Containment Air Filtration Exhaust	VFS-RE001
Gaseous Radwaste Discharge	WGS-RE017

Note:

1. Each main steam line monitor includes a noble gas detector and primary-to-secondary side leak detector.

Table 3.5-3 Effluent Radiation Monitors	
Equipment List	**Equipment No.**
Plant Vent (Normal Range Particulate)	VFS-RE101
Plant Vent (Normal Range Iodine)	VFS-RE102
Plant Vent (Normal Range Radiogas)	VFS-RE103
Plant Vent (Mid Range Radiogas)	VFS-RE104A
Plant Vent (High Range Radiogas)	VFS-RE104B
Turbine Island Vent(1)	TDS-RE001
Liquid Radwaste Discharge	WLS-RE229
Wastewater Discharge	WWS-RE021

Note:

1. The turbine island vent includes a low and a high range detector.

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	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.
830	3.5.00.05	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.
831	3.5.00.06	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.
832	3.5.00.07	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.
833	3.5.00.08	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.

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

Table 3.5-7		
Component Name	**Tag No.**	**Component Location**
Primary Sampling System Liquid Sample Radiation Monitor	PSS-RE050	Auxiliary Building
Primary Sampling System Gaseous Sample Radiation Monitor	PSS-RE052	Auxiliary Building
Containment Air Filtration Exhaust Radiation Monitor	VFS-RE001	Annex Building
Gaseous Radwaste Discharge Radiation Monitor	WGS-RE017	Auxiliary Building
Plant Vent (Normal Range Particulate) Radiation Monitor	VFS-RE101	Auxiliary Building
Plant Vent (Normal Range Iodine) Radiation Monitor	VFS-RE102	Auxiliary Building
Plant Vent (Normal Range Radiogas) Radiation Monitor	VFS-RE103	Auxiliary Building
Plant Vent (Mid Range Radiogas) Radiation Monitor	VFS-RE104A	Auxiliary Building
Plant Vent (High Range Radiogas) Radiation Monitor	VFS-RE104B	Auxiliary Building
Turbine Island Vent Radiation Monitor	TDS-RE001	Turbine Building
Liquid Radwaste Discharge Monitor	WLS-RE229	Radwaste Building
Wastewater Discharge Radiation Monitor	WWS-RE021	Turbine Building
Fuel Handling Area Exhaust Radiation Monitor	VAS-RE001	Auxiliary Building
Auxiliary Building Exhaust Radiation Monitor	VAS-RE002	Auxiliary Building
Annex Building Exhaust Radiation Monitor	VAS-RE003	Auxiliary Building
Health Physics and Hot Machine Shop Exhaust Radiation Monitor	VHS-RE001	Annex Building
Radwaste Building Exhaust Radiation Monitor	VRS-RE023	Radwaste Building
Primary Sampling Room	RMS-RE008	Auxiliary Building
Containment Area – Personnel Hatch – Operating Deck	RMS-RE009	Auxiliary Building
Main Control Room	RMS-RE010	Auxiliary Building
Chemistry Laboratory	RMS-RE011	Auxiliary Building
Fuel Handling Area 1	RMS-RE012	Auxiliary Building
Rail Car Bay/Filter Storage Area (Auxiliary Building Loading Bay)	RMS-RE013	Auxiliary Building
Liquid and Gaseous Radwaste Area	RMS-RY014	Radwaste Building
Control Support Area	RMS-RE016	Annex Building
Radwaste Building Mobile Systems Facility	RMS-RE017	Radwaste Building

ATTACHMENT TO LICENSE AMENDMENT NO. 15

TO FACILITY COMBINED LICENSE NO. NPF-94

DOCKET NO. 52-028

Replace the following pages of the Facility Combined License No. NPF-94 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-94

REMOVE	INSERT
7	7

Facility Combined License No. NPF-94
Appendix C - Inspections, Tests, Analyses and Acceptance Criteria

REMOVE	INSERT
C-46	C-46
C-47	C-47
C-120	C-120
C-138	C-138
C-181	C-181
C-252	C-252
C-344	C-344
C-355	C-355
C-356	C-356
C-370	C-370
C-401	C-401
C-428	C-428
C-431	C-431
C-432	C-432
C-433	C-433
C-442	C-442
C-443	C-443
C-446	C-446
C-447	C-447

(b) SCE&G 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. 15, 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

SCE&G shall implement the programs or portions of programs identified below, on or before the date SCE&G 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 of byproduct or special nuclear materials that are not fuel (excluding exempt quantities as described in 10 CFR 30.18);

2. The fire protection measures in accordance with RG 1.189 for areas containing new fuel (including adjacent areas where a fire could affect the new fuel) implemented before receipt of fuel onsite;

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	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.
3	2.1.01.03	3. The FHS preserves containment integrity by isolation of the fuel transfer tube penetrating containment.	See ITAAC Table 2.2.1-3, items 1 and 7.	See ITAAC Table 2.2.1-3, items 1 and 7.
4	2.1.01.04	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	2.1.01.05	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	2.1.01.06.i	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	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.
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.

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
9	2.1.01.07.ii	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.
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 2.2.3-1									
Equipment Name	**Tag No.**	**ASME Code Section III**	**Seismic Cat. I**	**Remotely Operated Valve**	**Class 1E/ Qual. Harsh Envir.**	**Safety-Related Display**	**Control PMS/ DAS**	**Active Function**	**Loss of Motive Power Position**
PRHR HX Control Valve	PXS-PL-V108A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	Open
PRHR HX Control Valve	PXS-PL-V108B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	Open
Containment Recirculation A Isolation Motor-operated Valve	PXS-PL-V117A	Yes	Yes	Yes	Yes/Yes	Yes (position)	Yes/No	None	As Is
Containment Recirculation B Isolation Motor-operated Valve	PXS-PL-V117B	Yes	Yes	Yes	Yes/Yes	Yes (position)	Yes/No	None	As Is
Containment Recirculation A Squib Valve	PXS-PL-V118A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation B Squib Valve	PXS-PL-V118B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation A Check Valve	PXS-PL-V119A	Yes	Yes	No	- / -	No	- / -	Transfer Open/ Transfer Closed	-
Containment Recirculation B Check Valve	PXS-PL-V119B	Yes	Yes	No	- / -	No	- / -	Transfer Open/ Transfer Closed	-
Containment Recirculation A Squib Valve	PXS-PL-V120A	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is
Containment Recirculation B Squib Valve	PXS-PL-V120B	Yes	Yes	Yes	Yes/Yes	Yes (Position)	Yes/Yes	Transfer Open	As Is

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

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
197	2.2.03.08c.xii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xii) Inspections will be conducted of the CMT level sensors (PXS-11A/B/D/C, -12A/B/C/D, - 13A/B/C/D, -14A/B/C/D) upper level tap lines.	xii) Each upper level tap line has a downward slope of ≥ 2.4 degrees from the centerline of the connection to the CMT to the centerline of the connection to the standpipe.
198	2.2.03.08c.xiii	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xiii) Inspections will be conducted of the surfaces in the vicinity of the containment recirculation screens. The surfaces in the vicinity of the containment recirculation screens are the surfaces located above the bottom of the recirculation screens up to and including the bottom surface of the plate discussed in Table 2.2.3-4, item 8.c.vii, out at least 10 feet perpendicular to and at least 7 feet perpendicular to the side of the screen face.	xiii) These surfaces are stainless steel.
199	2.2.03.08c.xiv	8.c) The PXS provides RCS makeup, boration, and safety injection during design basis events.	xiv) Inspections will be conducted of the exposed surfaces of the source range, intermediate range, and power range detectors.	xiv) These surfaces are made of stainless steel or titanium.
200	2.2.03.08d	8.d) The PXS provides pH adjustment of water flooding the containment following design basis accidents.	Inspections of the pH adjustment baskets will be conducted.	pH adjustment baskets exist, with a total calculated volume ≥ 560 ft^3. The pH baskets are located below plant elevation 107 ft, 2 in.
201	2.2.03.09a.i	9.a) The PXS provides a function to cool the outside of the reactor vessel during a severe accident.	i) A flow test and analysis for each IRWST drain line to the containment will be conducted. The test is initiated by opening isolation valves in each line. Test fixtures may be used to simulate squib valves.	i) The calculated flow resistance for each IRWST drain line between the IRWST and the containment is $\leq 4.07 \times 10^{-6}$ ft/gpm^2.

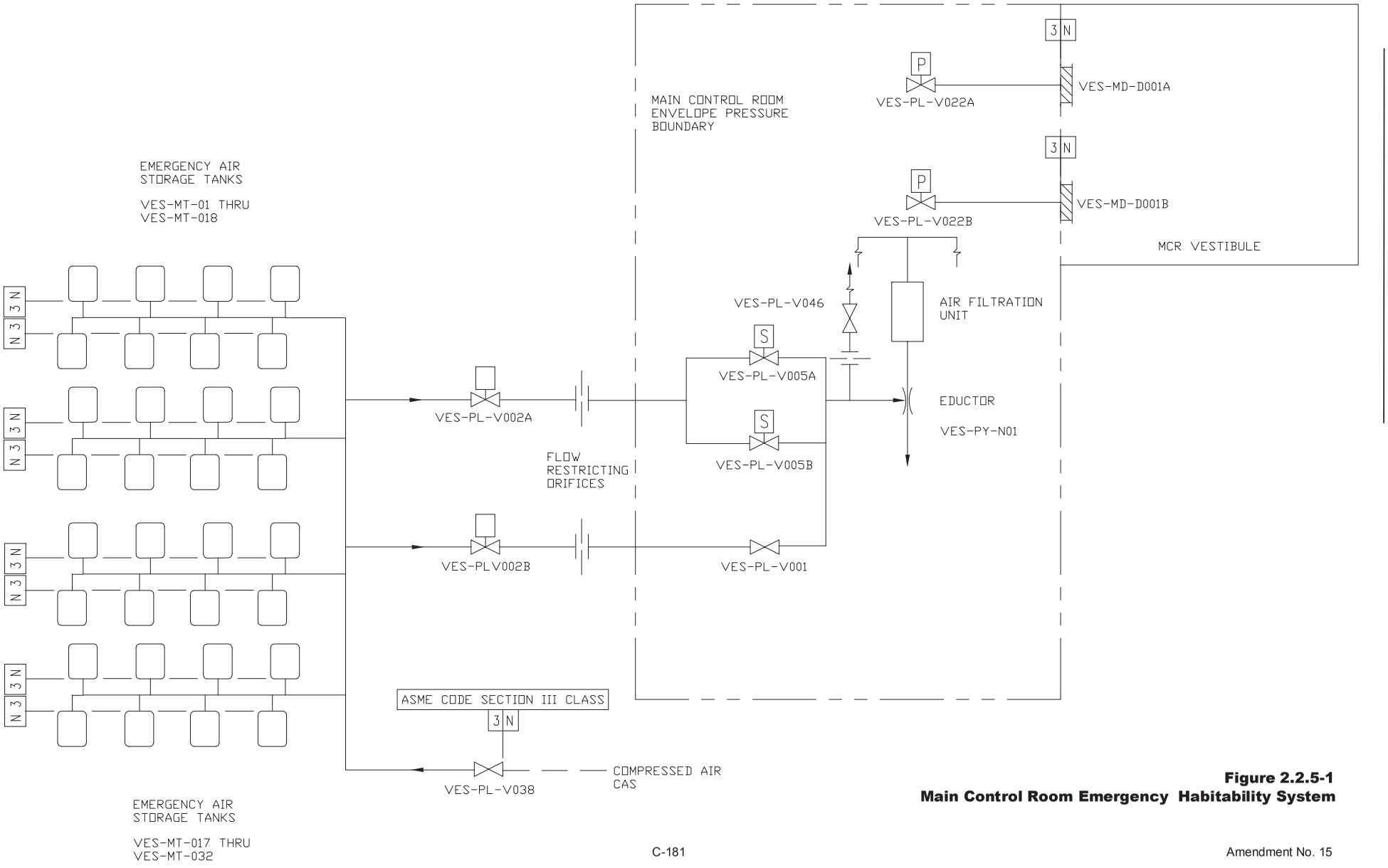

Figure 2.2.5-1
Main Control Room Emergency Habitability System

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**	**Control 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	-

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	1. The functional arrangement of the WLS is as described in the Design Description of this Section 2.3.10.	Inspection of the as-built system will be performed.	The as-built WLS conforms with the functional arrangement as described in the Design Description of this Section 2.3.10.
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.	Inspection will be conducted of the as-built components as documented in the ASME design reports.	The ASME Code Section III design report exists for the as built components identified in Table 2.3.10-1 as ASME Code Section III.
432	2.3.10.02b	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 piping as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built piping identified in Table 2.3.10-2 as ASME Code Section III.
433	2.3.10.03a	3.a) Pressure boundary welds in components identified in Table 2.3.10-1 as ASME Code Section III meet ASME Code Section III requirements.	Inspection of the as-built pressure boundary welds will be performed in accordance with the 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.

Table 2.6.3-4		
Component Name	**Tag No.**	**Component Location**
Division B 250 Vdc Distribution Panel	IDSB-DD-1	Auxiliary Building
Division C 250 Vdc Distribution Panel	IDSC-DD-1	Auxiliary Building
Division D 250 Vdc Distribution Panel	IDSD-DD-1	Auxiliary Building
Division A 120 Vac Distribution Panel 1	IDSA-EA-1	Auxiliary Building
Division A 120 Vac Distribution Panel 2	IDSA-EA-2	Auxiliary Building
Division B 120 Vac Distribution Panel 1	IDSB-EA-1	Auxiliary Building
Division B 120 Vac Distribution Panel 2	IDSB-EA-2	Auxiliary Building
Division B 120 Vac Distribution Panel 3	IDSB-EA-3	Auxiliary Building
Division C 120 Vac Distribution Panel 1	IDSC-EA-1	Auxiliary Building
Division C 120 Vac Distribution Panel 2	IDSC-EA-2	Auxiliary Building
Division C 120 Vac Distribution Panel 3	IDSC-EA-3	Auxiliary Building
Division D 120 Vac Distribution Panel 1	IDSD-EA-1	Auxiliary Building
Division D 120 Vac Distribution Panel 2	IDSD-EA-2	Auxiliary Building
Division A Fuse Panel 4	IDSA-EA-4	Auxiliary Building
Division B Fuse Panel 4	IDSB-EA-4	Auxiliary Building
Division B Fuse Panel 5	IDSB-EA-5	Auxiliary Building
Division B Fuse Panel 6	IDSB-EA-6	Auxiliary Building
Division C Fuse Panel 4	IDSC-EA-4	Auxiliary Building
Division C Fuse Panel 5	IDSC-EA-5	Auxiliary Building
Division C Fuse Panel 6	IDSC-EA-6	Auxiliary Building
Division D Fuse Panel 4	IDSD-EA-4	Auxiliary Building
Division A Fused Transfer Switch Box 1	IDSA-DF-1	Auxiliary Building
Division B Fused Transfer Switch Box 1	IDSB-DF-1	Auxiliary Building
Division B Fused Transfer Switch Box 2	IDSB-DF-2	Auxiliary Building
Division C Fused Transfer Switch Box 1	IDSC-DF-1	Auxiliary Building
Division C Fused Transfer Switch Box 2	IDSC-DF-2	Auxiliary Building
Division D Fused Transfer Switch Box 1	IDSD-DF-1	Auxiliary Building
Spare Fused Transfer Switch Box 1	IDSS-DF-1	Auxiliary Building
Spare Battery 125/240 Vdc Disconnect Switch	IDSS-SW-1	Auxiliary Building
Division A 250 Vdc MCC	IDSA-DK-1	Auxiliary Building

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.
638	2.6.06.01.ii	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.	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.

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	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.	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.
640	2.6.06.01.iv	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.	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.

2.6.7 Special Process Heat Tracing System

No entry for this system.

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	Run
Division B Room Ancillary Fan	VBS-MA-11	No	Run
Division C Room Ancillary Fan	VBS-MA-12	No	Run

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	1. The functional arrangement of the VBS is as described in the Design Description of this subsection 2.7.1	Inspection of the as-built system will be performed.	The as-built VBS conforms with the functional arrangement described in the Design Description of this subsection 2.7.1.
678	2.7.01.02a	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.	Inspection will be conducted of the as-built components as documented in the ASME design reports.	The ASME Code Section III design reports exist for the as-built components identified in Table 2.7.1-1 as ASME Code Section III.
679	2.7.01.02b	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.	Inspection will be conducted of the as-built piping as documented in the ASME design reports.	The ASME code Section III design reports exist for the as-built piping identified in Table 2.7.1-2 as ASME Code Section III.
680	2.7.01.03a	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.	Inspection of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	A report exists and concludes that the ASME Code Section III requirements are met for nondestructive examination of pressure boundary welds.

The MCR provides a facility and resources for the safe control and operation of the plant. The MCR includes a minimum inventory of displays, visual alerts and fixed-position controls. Refer to item 8.a and Table 2.5.2-5 of subsection 2.5.2 for this minimum inventory.

The remote shutdown room (RSR) provides a facility and resources to establish and maintain safe shutdown conditions for the plant from a location outside of the MCR. The RSW includes a minimum inventory of displays, controls, and visual alerts. Refer to item 2 and Table 2.5.4-1 of subsection 2.5.4 for this minimum inventory. As stated in item 8.b of subsection 2.5.2, the protection and safety monitoring system (PMS) provides for the transfer of control capability from the MCR to the RSW.

The mission of local control stations is to provide the resources, outside of the MCR, for operations personnel to perform monitoring and control activities.

Implementation of the HFE program includes activity 1 below. The MCR includes design features specified by items 2 through 4 below. The RSW includes the design features specified by items 5 through 8 below. Local control stations include the design feature of item 9.

1. The HFE program verification and validation implementation plans are developed in accordance with the programmatic level description of the AP1000 human factors verification and validation plan. The implementation plans establish the methods for conducting evaluations of the integrated HSI design. The development of the HFE verification and validation plans are complete. The following documents were developed:
   a) HSI task support verification – APP-OCS-GEH-220, “AP1000 Human Factors Engineering Task Support Verification Plan,” Westinghouse Electric Company LLC
   b) HFE design verification – APP-OCS-GEH-120, “AP1000 Human Factors Engineering Design Verification Plan,” Westinghouse Electric Company LLC
   c) Integrated system validation – APP-OCS-GEH-320, “AP1000 Human Factors Engineering Integrated System Validation Plan,” Westinghouse Electric Company LLC
   d) Issue resolution verification – APP-OCS-GEH-420, “AP1000 Human Factors Engineering Discrepancy Resolution Process,” Westinghouse Electric Company LLC
   e) Plant HFE/HSI (as designed at the time of plant startup) verification – APP-OCS-GEH-520, “AP1000 Plant Startup Human Factors Engineering Design Verification Plan,” Westinghouse Electric Company LLC
2. The MCR includes reactor operator workstations, supervisor workstation(s), safety-related displays, and safety-related controls.
3. The MCR provides a suitable workspace environment for use by MCR operators.
4. The HSI resources available to the MCR operators include the alarm system, plant information system (nonsafety-related displays), wall panel information system, nonsafety-related controls (soft and dedicated), and computerized procedure system.
5. The RSW includes reactor operator workstation(s) from which licensed operators perform remote shutdown operations.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
786	3.3.00.05c	5.c) The boundaries between the following rooms, which contain safety-related equipment – PXS valve/accumulator room A (11205), PXS valve/accumulator room B (11207), and CVS room (11209) – are designed to prevent flooding between these rooms.	An inspection of the boundaries between the following rooms which contain safety-related equipment – PXS Valve/ Accumulator Room A (11205), PXS Valve/Accumulator Room B (11207), and CVS Room (11209) – will be performed.	A report exists that confirms that flooding of the PXS Valve/ Accumulator Room A (11205), and the PXS Valve/Accumulator Room B (11207) is prevented to a maximum flood level as follows: PXS A 110'-2", PXS B 110'-1"; and of the CVS room (11209) to a maximum flood level of 110'-0".
787	3.3.00.06a	6.a) The available room volumes of the radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" exceed the volume of the liquid radwaste storage tanks (WLS-MT-05A, MT-05B, MT-06A, MT-06B, MT-07A, MT-07B, MT-07C, MT-11).	An inspection will be performed of the as-built radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" to define volume.	A report exists and concludes that the as-built available room volumes of the radiologically controlled area of the auxiliary building between floor elevations 66'-6" and 82'-6" exceed the volume of the liquid radwaste storage tanks (WLS-MT-05A, MT-05B, MT-06A, MT-06B, MT-07A, MT-07B, MT-07C, MT-11).
788	3.3.00.06b	6.b) The radwaste building package waste storage room has a volume greater than or equal to 1293 cubic feet.	An inspection of the radwaste building packaged waste storage room (50352) is performed.	The volume of the radwaste building packaged waste storage room (50352) is greater than or equal to 1293 cubic feet.
789	3.3.00.07aa	7.a) Class 1E electrical cables, communication cables associated with only one division, and raceways are identified according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and raceways will be conducted.	a) Class 1E electrical cables, and communication cables inside containment associated with only one division, and raceways are identified by the appropriate color code.
790	3.3.00.07ab	7.a) Class 1E electrical cables, communication cables associated with only one division, and raceways are identified according to applicable color-coded Class 1E divisions.	Inspections of the as-built Class 1E cables and raceways will be conducted.	b) Class 1E electrical cables, and communication cables in the non-radiologically controlled area of the auxiliary building associated with only one division, and raceways are identified by the appropriate color code.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
800	3.3.00.07d.ii.a	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.a) Within other plant areas inside containment (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
801	3.3.00.07d.ii.b	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.b) Within other plant areas inside the non-radiologically controlled area of the auxiliary building (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables < 2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

Table 3.3-6
Inspections, Tests, Analyses, and Acceptance Criteria

No.	ITAAC No.	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
802	3.3.00.07d.ii.c	7.d) Physical separation is maintained between Class 1E divisions and between Class 1E divisions and non-Class 1E cables.	Inspections of the as-built Class 1E raceways will be performed to confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii) Within other plant areas (limited hazard areas), the minimum separation is defined by one of the following: 1) The minimum vertical separation is 5 feet and the minimum horizontal separation is 3 feet. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables <2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations involving an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configuration involving enclosed raceways, the minimum separation is 1 inch in both horizontal and vertical directions.	Results of the inspection will confirm that the separation between Class 1E raceways of different divisions and between Class 1E raceways and non-Class 1E raceways is consistent with the following: ii.c) Within other plant areas inside the radiologically controlled area of the auxiliary building (limited hazard areas), the separation meets one of the following: 1) The vertical separation is 5 feet or more and the horizontal separation is 3 feet or more except. 2) The minimum vertical separation is 12 inches and the minimum horizontal separation is 6 inches for raceways containing only instrumentation and control and low-voltage power cables < 2/0 AWG. 3) For configurations that involve exclusively limited energy content cables (instrumentation and control), the minimum vertical separation is 3 inches and the minimum horizontal separation is 1 inch. 4) For configurations that involve an enclosed raceway and an open raceway, the minimum vertical separation is 1 inch if the enclosed raceway is below the open raceway. 5) For configurations that involve enclosed raceways, the minimum vertical and horizontal separation is 1 inch.

1. The seismic Category I equipment identified in Table 3.5-1 can withstand seismic design basis loads without loss of safety function.
2. The Class 1E equipment identified in Table 3.5-1 as being qualified for a harsh environment can withstand the 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.
3. Separation is provided between system Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.
4. Safety-related displays identified in Table 3.5-1 can be retrieved in the main control room (MCR).
5. The process radiation monitors listed in Table 3.5-2 are provided.
6. The effluent radiation monitors listed in Table 3.5-3 are provided.
7. The airborne radiation monitors listed in Table 3.5-4 are provided.
8. The area radiation monitors listed in Table 3.5-5 are provided.

Table 3.5-1

Equipment Name	Tag No.	Seismic Cat. I	Class 1E	Qual. for Harsh Envir.	Safety-Related Display
Containment High Range Monitor	PXS-RE160	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE161	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE162	Yes	Yes	Yes	Yes
Containment High Range Monitor	PXS-RE163	Yes	Yes	Yes	Yes
MCR Radiation Monitoring Package A(1)	VBS-JS01A	Yes	Yes	No	No
MCR Radiation Monitoring Package B(1)	VBS-JS01B	Yes	Yes	No	No
Containment Atmosphere Monitor (Gaseous)	PSS-RE026	Yes	No	No	No
Containment Atmosphere Monitor (particulate, for RCS pressure boundary leakage detection)	PSS-RE027	Yes	No	No	No

Notes: (1) Each MCR Radiation Monitoring Package includes particulate, iodine and gaseous radiation monitors.

Table 3.5-2 Process Radiation Monitors	
Equipment List	**Equipment No.**
Steam Generator Blowdown	BDS-RE010
Steam Generator Blowdown	BDS-RE011
Component Cooling Water	CCS-RE001
Main Steam Line(1)	SGS-RY026
Main Steam Line(1)	SGS-RY027
Service Water Blowdown	SWS-RE008
Primary Sampling System Liquid Sample	PSS-RE050
Primary Sampling System Gaseous Sample	PSS-RE052
Containment Air Filtration Exhaust	VFS-RE001
Gaseous Radwaste Discharge	WGS-RE017

Note:

1. Each main steam line monitor includes a noble gas detector and primary-to-secondary side leak detector.

Table 3.5-3 Effluent Radiation Monitors	
Equipment List	**Equipment No.**
Plant Vent (Normal Range Particulate)	VFS-RE101
Plant Vent (Normal Range Iodine)	VFS-RE102
Plant Vent (Normal Range Radiogas)	VFS-RE103
Plant Vent (Mid Range Radiogas)	VFS-RE104A
Plant Vent (High Range Radiogas)	VFS-RE104B
Turbine Island Vent(1)	TDS-RE001
Liquid Radwaste Discharge	WLS-RE229
Wastewater Discharge	WWS-RE021

Note:

1. The turbine island vent includes a low and a high range detector.

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	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.
830	3.5.00.05	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.
831	3.5.00.06	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.
832	3.5.00.07	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.
833	3.5.00.08	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.

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

Table 3.5-7		
Component Name	**Tag No.**	**Component Location**
Primary Sampling System Liquid Sample Radiation Monitor	PSS-RE050	Auxiliary Building
Primary Sampling System Gaseous Sample Radiation Monitor	PSS-RE052	Auxiliary Building
Containment Air Filtration Exhaust Radiation Monitor	VFS-RE001	Annex Building
Gaseous Radwaste Discharge Radiation Monitor	WGS-RE017	Auxiliary Building
Plant Vent (Normal Range Particulate) Radiation Monitor	VFS-RE101	Auxiliary Building
Plant Vent (Normal Range Iodine) Radiation Monitor	VFS-RE102	Auxiliary Building
Plant Vent (Normal Range Radiogas) Radiation Monitor	VFS-RE103	Auxiliary Building
Plant Vent (Mid Range Radiogas) Radiation Monitor	VFS-RE104A	Auxiliary Building
Plant Vent (High Range Radiogas) Radiation Monitor	VFS-RE104B	Auxiliary Building
Turbine Island Vent Radiation Monitor	TDS-RE001	Turbine Building
Liquid Radwaste Discharge Monitor	WLS-RE229	Radwaste Building
Wastewater Discharge Radiation Monitor	WWS-RE021	Turbine Building
Fuel Handling Area Exhaust Radiation Monitor	VAS-RE001	Auxiliary Building
Auxiliary Building Exhaust Radiation Monitor	VAS-RE002	Auxiliary Building
Annex Building Exhaust Radiation Monitor	VAS-RE003	Auxiliary Building
Health Physics and Hot Machine Shop Exhaust Radiation Monitor	VHS-RE001	Annex Building
Radwaste Building Exhaust Radiation Monitor	VRS-RE023	Radwaste Building
Primary Sampling Room	RMS-RE008	Auxiliary Building
Containment Area – Personnel Hatch – Operating Deck	RMS-RE009	Auxiliary Building
Main Control Room	RMS-RE010	Auxiliary Building
Chemistry Laboratory	RMS-RE011	Auxiliary Building
Fuel Handling Area 1	RMS-RE012	Auxiliary Building
Rail Car Bay/Filter Storage Area (Auxiliary Building Loading Bay)	RMS-RE013	Auxiliary Building
Liquid and Gaseous Radwaste Area	RMS-RY014	Radwaste Building
Control Support Area	RMS-RE016	Annex Building
Radwaste Building Mobile Systems Facility	RMS-RE017	Radwaste Building