



Dominion[®]

**North Anna 3
Combined
License
Application**

**Part 10:
Tier 1/ITAAC**

Revision 4

December 2011

REVISION SUMMARY

Revision 4

Section	Changes	Reason for Change
Section 1	Added reference to new appendix.	New Appendix A7
Appendix A.1	Changed title.	Editorial
Table A.1-1	Changed title and conformed contents to DCD R3.	Editorial and DCD R3
Table A.1-2	Changed title and conformed contents to site-specific design.	Editorial, site-specific design, and DCD R3
Table A.1-3	Changed title, corrected errors, and conformed contents to site-specific design.	Editorial, site-specific design, and DCD R3
Figure A.1-1	Updated site-specific design information.	Site-specific design
Table A.2-1	Conformed contents to DCD R3.	DCD R3
Tables A.2-2 & A.2-3	See RAI 09.04.05-6, Safety/Seismic Classification of UHS ESW Pump House Ventilation System Components	
Table A.2-3	Changed column headings "MRC Alarm" to "MCR/RSC Alarm" and "Control Function" to "MCR/RSC Control Function."	DCD R3
Figure A.2-1	Updated site-specific design information.	Site-specific design
Table A.3-1	See RAI 09.04.05-4, Barrier Between ESW Pump and UHS Transfer Pump Rooms	
	Updated site-specific information.	Site-specific design
	Conformed contents to site-specific design.	DCD R3
Figure A.3-1	Added.	DCD R3 and site-specific design
Table A.4-1	ITAAC 5.a editorial.	DCD consistency and improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 5.b editorial.	
	ITAAC 7 editorial.	
	ITAAC 9 editorial.	
	ITAAC 10 editorial.	
Appendix A.5	Added.	Align with R-COLA
Appendix A.6	Changed title and deleted A.6.1 (replaced by A.6.2).	Editorial and DCD R3

Revision 4(continued)

Section	Changes	Reason for Change
Table A.6-1	Changed title, corrected errors, and conformed contents to site-specific design.	Editorial and DCD R3
Table A.6-3	Changed title, corrected errors, and change entries in Class 1E/Harsh column to “No/No.”	Editorial
Appendix A.7	Added.	Provide ITAAC for Tier 1 Interface Requirement 3.2.2 Fire Protection
Table B-1	See RAI 14.03.10-3, ITAAC for Emergency Planning	
	ITAAC 1.1.1 editorial.	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 1.1.2 editorial.	
	ITAAC 2.1.1 editorial.	
	ITAAC 2.2 editorial.	
	ITAAC 2.3 editorial.	
	ITAAC 3.1, 3.1.1 editorial and deleted Tier 1 references.	Relocated from Tier 1
	ITAAC 3.1.2 added.	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 3.2, 3.2.1 editorial and deleted Tier 1 references.	Relocated from Tier 1
ITAAC 3.2.2 added.		

Revision 4(continued)

Section	Changes	Reason for Change
Table B-1 (continued)	ITAAC 4.1 editorial.	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 5.1.1 editorial.	Editorial
	ITAAC 5.1.2.1 editorial (was 5.1.2).	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 5.1.2.2 editorial (was 5.1.3).	
	ITAAC 5.2.1 clarified method to close ITAAC.	
	ITAAC 5.2.2 editorial.	
	ITAAC 5.2.3 deleted references removed from Tier 1 and added text to implement the relocated TIER 1 ITAAC.	DCD R3
	ITAAC 6.1 editorial.	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 6.5 editorial.	
	ITAAC 6.6 editorial.	
	ITAAC 7.1.1 editorial.	
	ITAAC 7.1.2 editorial.	
Table C-1	See RAI 14.03.12-1 & 2, Physical Security Hardware ITAAC	
	Deleted version date of UL752.	Align with R-COLA
	Added ITAAC 11.c.i.	
	ITAAC 11.c.ii editorial.	Improve ITAAC nomenclature per RIS 2008-05 R1
	ITAAC 11.b.ii editorial.	

Revision 3

Section	Changes
All	Revised to reflect the change from ESBWR to US-APWR technology. Added Sections A.5 and A.6.

Revision 2

Section	Changes
1.1.2, Table 2.4.2-1	RAI 09.02.01-8, PSWS Heat Removal ITAAC Acceptance Criteria
1.1.7, Table 2.4.7-1	RAI 14.03.06-1, Add ITAAC for Off-site Power Interface

Revision 2(continued)

Section	Changes
Table 2.3-1	RAI 13.03-3 - Revised, Emergency Action Levels
Table 2.3-1	RAI 13.03-6, Onsite Exercise Objectives in ITAAC
Table 2.3-1	RAI 13.03-7, Offsite Exercise Objectives in ITAAC
1.1.10	RAI 14.03.07-1, Revise Reference to Mobile LWMS
1.1.11	RAI 14.03.07-2, Revise Reference to Mobile SWMS

Revision 1

Section	Changes
Table 2.3-1	RAI NA3 14.03.10-1.2, ITAAC Table Correction
	RAI NA3 14.03.10-1.4, ITAAC for U3 E-Plan Exercise
	Corrected incomplete reference in EP Program Elements column, 1.1 and reference to EP in Inspection, Tests, Analyses column, 1.1.

TIER 1 INFORMATION AND INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA

1. Tier 1 Information

The ITAAC for the COLA consist of the following:

1. Design Certification ITAAC are contained in DCD Tier 1 which is incorporated by reference subject to the departures and exemptions identified in COLA Part 7.
2. Plant-Specific ITAAC are provided in [Appendices A.1](#), [A.2](#), [A.3](#), [A.4](#), [A.5](#), [A.6](#) and [A.7](#). The design description information contained in the Appendices is a compilation of information from various sources in the FSAR and is included to assist the reader in reviewing information pertinent to the Plant-Specific ITAAC.
3. Emergency Planning ITAAC are provided in [Appendix B](#).
4. Plant Specific Security ITAAC are provided in Appendix C.

Appendix A.1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS) (Portions Outside the Scope of the Certified Design)

A.1.1 Inspections, Tests, Analyses, and Acceptance Criteria

Table A.1-1 describes the inspections, tests, analyses, and associated acceptance criteria for the UHSS and ESWS portions outside the scope of the certified design.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1.a The functional arrangement of the UHSS and ESWS (portions outside the scope of the certified design) is as shown on Figure A.1-1 .	1.a Inspection of the as-built UHSS and ESWS (portions outside the scope of the certified design) will be performed.	1.a The as-built UHSS and ESWS (portions outside the scope of the certified design) conform to the functional arrangement as shown on Figure A.1-1 .
1.b Each mechanical division of the UHSS and ESWS (Division A, B, C & D) is physically separated from the other divisions, except for the header portion of the transfer line piping, so as not to preclude accomplishment of the safety function.	1.b Inspection and analysis of the as-built UHSS and ESWS will be performed.	1.b A report exists and concludes that each mechanical division of the as-built UHSS and ESWS (Division A, B, C & D), except for the header portion of the transfer line piping, is physically separated from the other divisions of the system by spatial separation, barriers or enclosures so as to assure that the functions of the safety-related system are maintained considering postulated dynamic effects (i.e., missile and pipe break hazard), internal flooding and fire.
2.a.i The ASME Code Section III components of the UHSS and ESWS (portions outside the scope of the certified design), identified in Table A.1-2 , are fabricated, installed and inspected in accordance with ASME Code Section III requirements.	2.a.i Inspection of the as-built ASME Code Section III components of the UHSS and ESWS (portions outside the scope of the certified design), identified in Table A.1-2 will be performed.	2.a.i The ASME Code Section III data report(s) (certified when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) exist and conclude that the as-built ASME Code Section III components of the UHSS and ESWS (portions outside the scope of the certified design) identified in Table A.1-2 are fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
2.a.ii The ASME Code Section III components of the UHSS and ESWS (portions outside the scope of the certified design) identified in Table A.1-2 are reconciled with the design requirements.	2.a.ii A reconciliation analysis of the components of the UHSS and ESWS (portions outside the scope of the certified design) identified in Table A.1-2 using as-designed and as-built information and ASME Code Section III design report(s) (NCA-3550) will be performed.	2.a.ii The ASME Code Section III design report(s) (certified, when required by ASME Code) exist and conclude that design reconciliation has been completed in accordance with the ASME Code, for the as-built ASME Code Section III components of the UHSS and ESWS (portions outside the scope of the certified design) identified in Table A.1-2 . The report documents the results of the reconciliation analysis.
2.b.i The ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), identified in FSAR Table 3.2-201 , is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.	2.b.i Inspection of the as-built ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 will be performed.	2.b.i The ASME Code Section III data report(s) (certified when required by ASME Code) and inspection reports (including N-5 Data Reports where applicable) exist and conclude that the as-built ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design) identified in FSAR Table 3.2-201 is fabricated, installed, and inspected in accordance with ASME Code Section III requirements.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
2.b.ii The ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 , are reconciled with the design requirements.	2.b.ii A reconciliation analysis of the piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 , using as-designed and as-built information and ASME Code Section III design report(s) (NCA-3550) will be performed.	2.b.ii The ASME Code Section III design report(s) (certified, when required by ASME Code) exist and conclude that design reconciliation has been completed in accordance with the ASME Code, for the as-built ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 . The report documents the results of the reconciliation analysis.
3.a Pressure boundary welds in ASME Code Section III components, identified in Table A.1-2 , meet ASME Code Section III requirements for non-destructive examination of welds.	3.a Inspections of the as-built pressure boundary welds in ASME Code Section III components, identified in Table A.1-2 , will be performed in accordance with the ASME Code Section III.	3.a The ASME Code Section III code reports exist and conclude that the ASME Code Section III requirements are met for nondestructive examination of the as-built pressure boundary welds in ASME Code Section III components, identified in Table A.1-2 .
3.b Pressure boundary welds in ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), identified in FSAR Table 3.2-201 , meet ASME Code Section III requirements for non-destructive examination of welds.	3.b Inspections of the as-built pressure boundary welds in ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design), identified in FSAR Table 3.2-201 , will be performed in accordance with the ASME Code Section III.	3.b The ASME Code Section III code reports exist and conclude that the ASME Code Section III requirements are met for nondestructive examination of the as-built pressure boundary welds in ASME Code Section III piping of the UHSS and ESWS (portions outside the scope of the certified design) identified in FSAR Table 3.2-201 .

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
4.a The ASME Code Section III components, identified in Table A.1-2 , retain their pressure boundary integrity at their design pressure.	4.a A hydrostatic test will be performed on the as-built components, identified in Table A.1-2 , required by the ASME Code Section III to be hydrostatically tested.	4.a ASME Code Data Report(s) exist and conclude that the results of the hydrostatic test of the as-built components identified in Table A.1-2 as ASME Code Section III conform to the requirements of the ASME Code Section III.
4.b The ASME Code Section III piping, of the UHSS and ESWS (portions outside the scope of the certified design), identified in FSAR Table 3.2-201 , retains its pressure boundary integrity at its design pressure.	4.b A hydrostatic test will be performed on the as-built piping of the UHSS and ESWS (portions outside the scope of the certified design), identified in FSAR Table 3.2-201 , required by the ASME Code Section III to be hydrostatically tested.	4.b ASME Code Data Report(s) exist and conclude that the results of the hydrostatic test of the as-built piping of the UHSS and ESWS (portions outside the scope of the certified design) identified in FSAR Table 3.2-201 as ASME Code Section III conform to the requirements of the ASME Code Section III.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
5.a The seismic Category I equipment, identified in Table A.1-2 , can withstand seismic design basis loads without loss of safety function.	5.a.i Inspections will be performed to verify that the as-built seismic Category I equipment identified in Table A.1-2 is located in a seismic Category I structure.	5.a.i The as-built seismic Category I equipment identified in Table A.1-2 is located in a seismic Category I structure.
	5.a.ii Type tests analyses, or a combination of type tests and analyses of seismic Category I equipment identified in Table A.1-2 will be performed using analytical assumptions, or will be performed under conditions, which bound the seismic design basis requirements.	5.a.ii A report exists and concludes that the seismic Category I equipment identified in Table A.1-2 can withstand seismic design basis loads without loss of safety function.
	5.a.iii Inspections and analyses will be performed to verify that the as-built seismic Category I equipment identified in Table A.1-2 , including anchorages, is seismically bounded by the tested or analyzed conditions.	5.a.iii A report exists and concludes that the as-built seismic Category I equipment identified in Table A.1-2 , including anchorages is seismically bounded by the tested or analyzed conditions.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
5.b The seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 , can withstand seismic design basis loads without a loss of its safety function.	5.b.i Inspections will be performed to verify that the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 is supported by a seismic Category I structure(s).	5.b.i The as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 is supported by a seismic Category I structure(s).
	5.b.ii Inspections and analyses will be performed to verify that the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 can withstand seismic design basis loads without a loss of its safety function.	5.b.ii A report exists and concludes that the as-built seismic Category I piping of the UHSS and ESWS (portions outside the scope of the certified design), including supports, identified in FSAR Table 3.2-201 can withstand seismic design basis loads without a loss of its safety function.
6.a The Class 1E equipment, identified in Table A.1-2 , is powered from its respective Class 1E division.	6.a A test will be performed on each division of the as-built Class 1E equipment identified in Table A.1-2 by providing a simulated test signal only in the Class 1E division under test.	6.a The simulated test signal exists at the as-built Class 1E equipment identified in Table A.1-2 under test.
6.b Separation is provided between redundant divisions of Class 1E cables, and between Class 1E cables and non-Class 1E cables.	6.b Inspections of the as-built Class 1E divisional cables will be performed.	6.b Physical separation or electrical isolation is provided in accordance with RG 1.75 between the as-built cables of redundant Class 1E divisions and between Class 1E cables and non-Class 1E cables.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7. The UHSS is capable of removing the maximum design heat load transferred from the ESWS during all plant operating conditions, including normal plant operating, abnormal and accident conditions.	7. Tests and analyses will be performed that determine the heat removal capability of the as-built UHSS. The analysis will consider that the maximum ESWS supply water temperature is 95° F under the peak heat load condition.	7. A report exists and concludes that the as-built UHSS is capable of removing the maximum design heat load transferred from the as-built ESWS for all plant operating conditions, including normal plant operating, abnormal and accident conditions while maintaining an ESWS supply water temperature ≤95°F.
8. Controls are provided in the MCR to open and close the remotely operated valves identified in Table A.1-2 .	8. Tests will be performed on the as-built remotely operated valves identified in Table A.1-2 using controls in the as-built MCR.	8. Controls in the as-built MCR open and close the as-built remotely operated valves identified in Table A.1-2 .

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
9.a The remotely operated valves, identified in Table A.1-2 as having an active safety function, perform an active safety function to change position as indicated in the table.	9.a.i Type tests or a combination of type tests and analyses of the remotely operated valves identified in Table A.1-2 as having an active safety function will be performed that demonstrate the capability of the valve to operate under its design conditions.	9.a.i A report exists and concludes that each remotely operated valve identified in Table A.1-2 as having an active safety function changes position as indicated in Table A.1-2 under design conditions.
	9.a.ii Tests of the as-built remotely operated valves identified in Table A.1-2 as having an active safety function will be performed under pre-operational flow, differential pressure, and temperature conditions.	9.a.ii Each as-built remotely operated valve identified in Table A.1-2 as having an active safety function changes position as indicated in Table A.1-2 under pre-operational test conditions.
	9.a.iii Inspections will be performed of the as-built remotely operated valves identified in Table A.1-2 as having an active safety function.	9.a.iii Each as-built remotely operated valve identified in Table A.1-2 as having an active safety function is bounded by the type tests, or a combination of type tests and analyses.
9.b The valves identified in Table A.1-2 as having PSMS control perform an active safety function after receiving a signal from PSMS.	9.b Tests will be performed on the as-built valves identified in Table A.1-2 using simulated signals.	9.b The as-built valves identified in Table A.1-2 as having PSMS control perform the active safety function identified in the table after receiving a simulated signal.
9.c After loss of motive power, the remotely operated valves, identified in Table A.1-2 , assume the indicated loss of motive power position.	9.c Tests of the as-built remotely operated valves identified in Table A.1-2 will be performed under the conditions of loss of motive power.	9.c Upon loss of motive power, each as-built remotely operated valve identified in Table A.1-2 assumes the indicated loss of motive power position.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
10.a Controls are provided in the MCR to start and stop the pumps and fans identified in Table A.1-3 .	10.a Tests will be performed on the as-built pumps and fans identified in Table A.1-3 using controls in the as-built MCR.	10.a Controls in the as-built MCR start and stop the as-built pumps and fans listed in Table A.1-3 .
10.b The fans identified in Table A.1-2 as having PSMS control perform an active safety function after receiving a signal from PSMS.	10.b Tests will be performed on the as-built fans identified in Table A.1-2 using simulated signals.	10.b The as-built fans identified in Table A.1-2 as having PSMS control perform the active safety function identified in the table after receiving a simulated signal.
11. Alarms and displays identified in Table A.1-3 are provided in the MCR.	11. Inspection will be performed for retrievability of the alarms and displays identified in Table A.1-3 in the as-built MCR.	11. Alarms and displays identified in Table A.1-3 can be retrieved in the as-built MCR.
12. Alarms, displays and controls identified in Table A.1-3 are provided in the RSC.	12.a Inspection will be performed for retrievability of the alarms and displays identified in Table A.1-3 in the as-built RSC.	12.a Alarms and displays identified in Table A.1-3 can be retrieved in the as-built RSC.
	12.b Tests of the as-built RSC control functions identified in Table A.1-3 will be performed.	12.b Controls in the as-built RSC operate the as-built equipment identified in Table A.1-3 with an RSC control function.
13. Each UHSS basin has a volume to satisfy the thirty day cooling water supply criteria.	13. Inspection will be performed to verify the as-built UHSS basins include sufficient volume of water.	13. The usable water volume of each as-built UHSS basin is greater than or equal to 3.12×10^6 gallons at the minimum maintained basin water level.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
14. The UHSS transfer pumps and ESWS pumps have sufficient NPSH.	14. Tests to measure the as-built suction pressure will be performed. Inspections and analysis to determine NPSH available to each UHSS transfer and ESWS pump will be performed. The analysis will consider vendor test results of required NPSH and the effects of: - suction from the UHSS basin with water level at the minimum allowed value (after 30 days of accident mitigation) - UHSS design temperature range	14. A report exists and concludes that the as-built NPSH available to each UHSS transfer and ESWS pump is greater than the required NPSH.
15. ESWS pump operation does not cause vortex formation at minimum allowed UHSS water level.	15. Test of the as-built ESWS pump will be performed.	15. ESWS pump operation does not cause vortex formation at minimum allowed UHS water level (after 30 days of accident mitigation).
16. Water hammer is prevented in the UHSS.	16. Inspection and analysis of the as-built UHSS will be performed.	16. A report exists and concludes that the as-built UHSS is fabricated and installed to prevent water hammer.
17. The sum of the ESWS pump shutoff head and static head is such that the ESWS design pressure is not exceeded.	17. Inspection, test and analysis of the as-built ESWS will be performed.	17. A report exists and concludes that the sum of the as-built ESW pump shutoff head and static head is such that the ESWS design pressure is not exceeded.

**Table A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
18. The UHSS is capable of performing its safety functions under design basis event conditions and coincident single failure with or without offsite power available.	18. Inspection and analysis of the as-built UHSS will be performed.	18. A report exists and concludes that the as-built UHSS is capable of performing its safety functions under design basis event conditions and coincident single failure with or without offsite power available.

**Table A.1-2 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
(Portions Outside the Scope of the Certified Design)
Equipment Characteristics**

Equipment Name	Tag No.	ASME Code Section III Class	Seismic Category I	Remotely Operated Valve	Class 1E/Qual. For Harsh Envir.	Active Safety Function	PSMS Control	Loss of Motive Power Position
Ultimate heat sink transfer pumps	UHS-MPP-001A, B, C, D	3	Yes	-	Yes/No	Start Stop	Remote Manual	-
Ultimate heat sink cooling tower fans	UHS-MFN-001A, B, C, D, 002A, B, C, D	-	Yes	-	Yes/No	Start Stop Start	ECCS Actuation LOOP Sequence Remote Manual	-
Ultimate heat sink transfer pump discharge valves	UHS-MOV-503A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	Remote Manual	As is
Ultimate heat sink transfer line basin inlet valves	UHS-MOV-506A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	Remote Manual	As is
Ultimate heat sink transfer pump discharge valves (Winter Operation)	UHS-MOV-507A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	Remote Manual	As is
Ultimate heat sink basin inlet valves (Winter Operation)	UHS-MOV-508A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	Remote Manual	As is
Ultimate heat sink cooling tower isolation valves	UHS-MOV-509A, B, C, D	3	Yes	Yes	Yes/No	Transfer Open Transfer Closed Transfer Open	ECCS Actuation Remote Manual	As is
Ultimate heat sink cooling tower bypass valves	UHS-MOV-510A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Closed Transfer Open	ECCS Actuation Remote Manual	As is

**Table A.1-2 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
(Portions Outside the Scope of the Certified Design)
Equipment Characteristics**

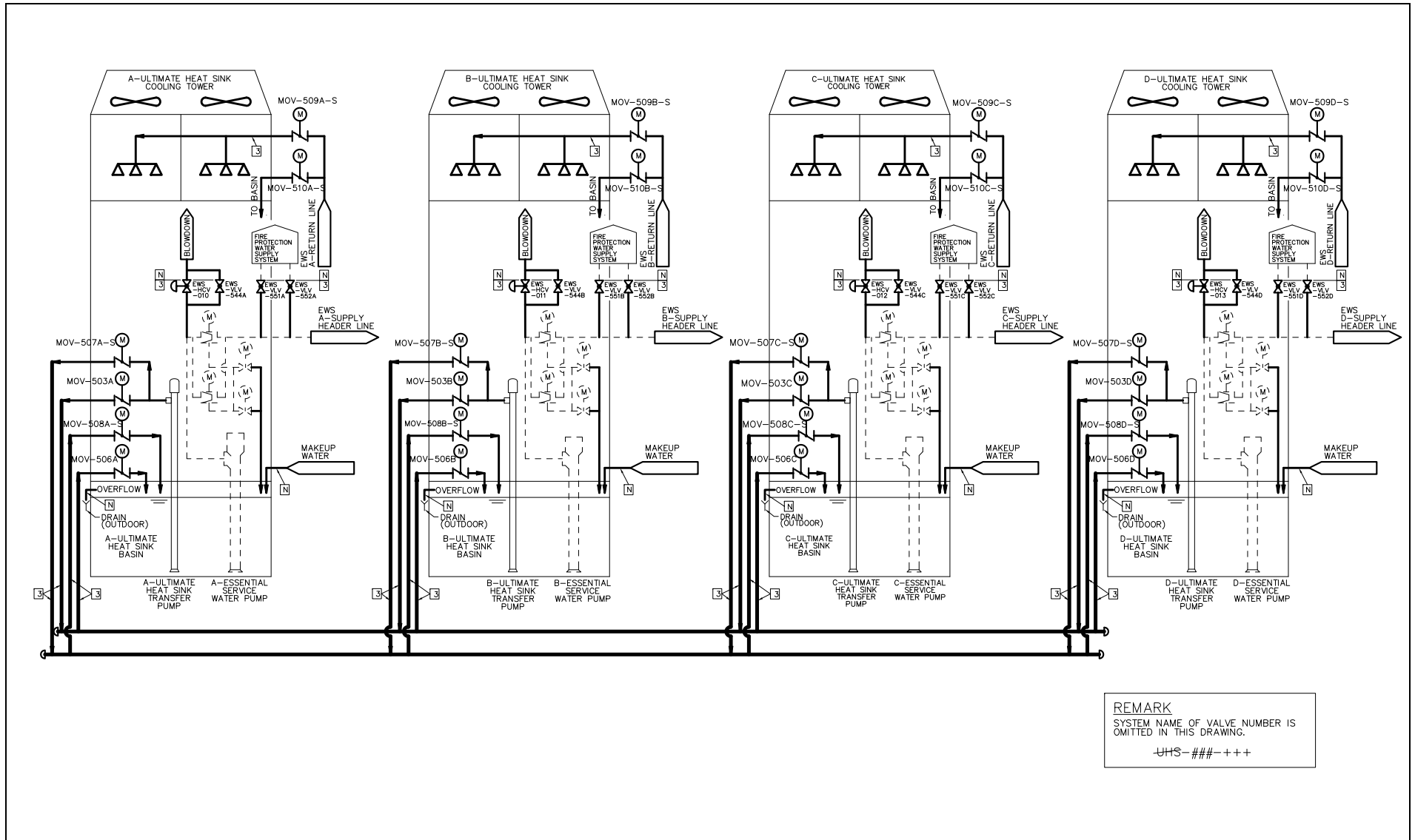
Equipment Name	Tag No.	ASME Code Section III Class	Seismic Category I	Remotely Operated Valve	Class 1E/ Qual. For Harsh Envir.	Active Safety Function	PSMS Control	Loss of Motive Power Position
Ultimate heat sink basin blowdown control valves	EWS-HCV-010, 011, 012, 013	3	Yes	Yes	Yes/No	Transfer Closed	ECCS Actuation LOOP ESWS Pump Stop UHS Basin Low Water Level Remote Manual	Closed
Ultimate heat sink basin water level	UHS-LT-010A,B, 011A,B, 012A,B, 013A,B	-	Yes	-	Yes/No	-	-	-
Ultimate heat sink basin temperature	UHS-TE-010, 011, 012, 013	-	Yes	-	Yes/No	-	-	-

NOTE: Dash (-) indicates not applicable.

**Table A.1-3 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
 (Portions Outside the Scope of the Certified Design)
 Equipment Alarms, Displays, and Control Functions**

Equipment/Instrument Name	MCR/ RSC Alarm	MCR Display	MCR/ RSC Control Function	RSC Display
Ultimate heat sink transfer pumps (UHS-MPP-001A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink cooling tower fans (UHS-MFN-001A, B, C, DA, B, C, D, 002A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink transfer pump discharge valves (UHS-MOV-503A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink transfer line basin inlet valves (UHS-MOV-506A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink transfer pump discharge valves (Winter Operation) (UHS-MOV-507A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink (Winter Operation) basin Inlet valves (UHS-MOV-508A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink cooling tower isolation valves (UHS-MOV-509A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink cooling tower bypass valves (UHS-MOV-510A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink basin blowdown control valves (EWS-HCV-010, 011, 012, 013)	No	Yes	Yes	Yes
Ultimate heat sink basin water level (UHS-LT-010A,B, 011A,B, 012A,B, 013A,B)	Yes	Yes	No	Yes
Ultimate heat sink basin temperature (UHS-TE-010, 011, 012, 013)	Yes	Yes	No	Yes

**Figure A.1-1 Ultimate Heat Sink System (UHSS) and Essential Service Water System (ESWS)
(Portions Outside the Scope of the Certified Design)**



Appendix A.2 UHS ESW Pump House Ventilation System

A.2.1 Inspections, Tests, Analyses, and Acceptance Criteria

[Table A.2-1](#) specifies the inspections, tests, analyses, and associated acceptance criteria for the UHS ESW pump house ventilation system.

Table A.2-1 UHS ESW Pump House Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1.a The functional arrangement of the UHS ESW pump house ventilation system is as shown in Figure A.2-1	1.a Inspection of the as-built UHS ESW pump house ventilation system will be performed.	1.a The as-built UHS ESW pump house ventilation system conforms to the functional arrangement as shown in Figure A.2-1 .
1.b Each mechanical division of the UHS ESW pump house ventilation system (Division A, B, C & D) is physically separated from the other divisions of the UHS ESW pump house ventilation system so as not to preclude accomplishment of the safety function.	1.b Inspections and analysis of the as-built UHS ESW pump house ventilation system will be performed.	1.b A report exists and concludes that each mechanical division of the as-built UHS ESW pump house ventilation system is physically separated from other mechanical divisions of the system by spatial separation, barriers, or enclosures so as to assure that the functions of the safety-related systems are maintained considering postulated dynamic effects (i.e., missile and pipe break hazard), internal flooding and fire.

Table A.2-1 UHS ESW Pump House Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
2 The seismic Category I equipment, identified in Table A.2-2 , can withstand seismic design basis loads without loss of safety function.	2.a Inspections will be performed to verify that the as-built seismic Category I equipment identified in Table A.2-2 is located in a seismic Category I structure.	2.a The as-built seismic Category I equipment identified in Table A.2-2 is located in a seismic Category I structure.
	2.b Type tests, analyses, or a combination of type tests and analyses of the seismic Category I equipment identified in Table A.2-2 will be performed using analytical assumptions, or will be performed under conditions, which bound the seismic design basis requirements.	2.b A report exists and concludes that the seismic Category I equipment identified in Table A.2-2 can withstand seismic design basis loads without loss of safety function.
	2.c Inspection and analyses will be performed to verify that the as-built seismic Category I equipment identified in Table A.2-2 , including anchorages, is seismically bounded by the tested or analyzed conditions.	2.c A report exists and concludes that the as-built seismic Category I equipment identified in Table A.2-2 , including anchorages, is seismically bounded by the tested or analyzed conditions.
3.a The Class 1E equipment, identified in Table A.2-2 , is powered from its respective Class 1E division.	3.a A test will be performed on each division of the as-built Class 1E equipment identified in Table A.2-2 by providing a simulated test signal only in the Class 1E division under test.	3.a The simulated test signal exists at the as-built Class 1E equipment identified in Table A.2-2 under test.
3.b Separation is provided between redundant divisions of UHS ESW pump house ventilation system Class 1E cables, and between Class 1E cables and non-Class 1E cables.	3.b Inspections of the as-built Class 1E divisional cables will be performed.	3.b Physical separation or electrical isolation is provided in accordance with R.G. 1.75, between the as-built cables of redundant UHS ESW pump house ventilation system Class 1E divisions and between Class 1E cables and non-class 1E cables.

Table A.2-1 UHS ESW Pump House Ventilation System Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
4 The UHS ESW pump house ventilation system maintains area temperature within design limits in the UHS ESW pump houses during normal operating, abnormal and accident conditions.	4 Tests and analyses of the as-built UHS ESW pump house ventilation system will be performed.	4 A report exists and concludes that the as-built UHS ESW pump house ventilation system is capable of maintaining the area temperature in the UHS ESW pump houses within the design limits during normal operating, abnormal, and accident conditions with outside ambient design temperature condition (i.e. -21°F - 109°F).
5.a Controls are provided in the MCR to start and stop the UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-3 .	5.a Tests will be performed on the as-built exhaust fans and unit heaters identified in Table A.2-3 using controls in the as-built MCR.	5.a Controls in the as-built MCR start and stop the as-built exhaust fans and unit heaters identified in Table A.2-3 .
5.b The UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2 as having PSMS control, perform an active safety function after receiving a signal from PSMS.	5.b Tests will be performed on the as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2 as having PSMS control using simulated signals.	5.b The as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-2 as having PSMS control, perform an active safety function identified in the table after receiving a simulated signal.
6 Displays identified in Table A.2-3 are provided in the MCR.	6 Inspections will be performed for retrievability of the displays identified in Table A.2-3 in the as-built MCR.	6 Displays identified in Table A.2-3 can be retrieved in the as-built MCR.
7. Displays and controls identified in Table A.2-3 are provided in the RSC.	7.a Inspections will be performed for retrievability of the as-built displays identified in Table A.2-3 in the as-built RSC.	7.a Displays identified in Table A.2-3 can be retrieved in the as-built RSC.
	7.b Tests of the as-built RSC control functions identified in Table A.2-3 will be performed.	7.b Controls in the as-built RSC operate the as-built equipment identified in Table A.2-3 with an RSC control function.

Table A.2-2 UHS ESW Pump House Ventilation System Equipment Characteristics

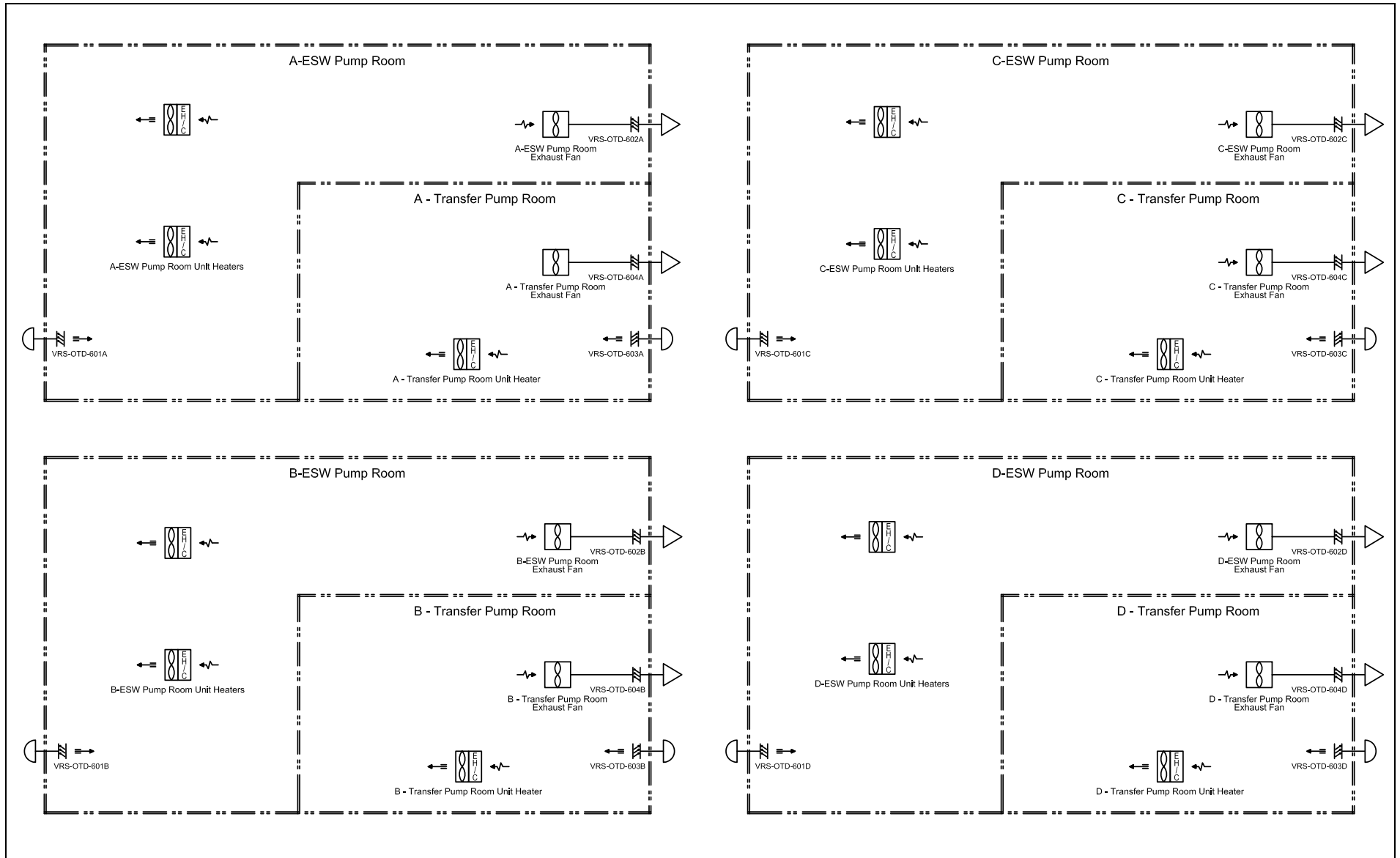
Equipment Name	Tag No.	ASME Code Section III Class	Seismic Category I	Remotely Operated Damper	Class 1E/Qual. For Harsh Envir.	PSMS Control	Active Safety Function	Loss of Motive Power Position
ESW Pump Room Exhaust Fan	VRS-MFN-601A,B,C,D	—	Yes	—	Yes/No	High Temperature	Start	—
Transfer Pump Room Exhaust Fan	VRS-MFN-602A,B,C,D	—	Yes	—	Yes/No	High Temperature	Start	—
ESW Pump Room Unit Heater	VRS-MEH-601A,B,C,D, VRS-MEH-602A,B,C,D	—	Yes	—	Yes/No	Low Temperature	Start	—
Transfer Pump Room Unit Heater	VRS-MEH-603A,B,C,D	—	Yes	—	Yes/No	Low Temperature	Start	—
ESW Pump Room Temperature Switches	VRS-TS-803,804,805,806 VRS-TS-823,824,825,826 VRS-TS-843,844,845,846 VRS-TS-863,864,865,866	—	Yes	—	Yes/No	—	—	—
Transfer Pump Room Temperature Switches	VRS-TS-812,813,814,815 VRS-TS-832,833,834,835 VRS-TS-852,853,854,855 VRS-TS-872,873,874,875	—	Yes	—	Yes/No	—	—	—
ESW Pump Room Air Intake Gravity Type Backdraft Dampers	VRS-OTD-601A,B,C,D	—	Yes	—	No/No	—	(1)	—
ESW Pump Room Air Discharge Gravity Type Backdraft Dampers	VRS-OTD-602A,B,C,D	—	Yes	—	No/No	—	(1)	—
Transfer Pump Room Air Intake Gravity Type Backdraft Dampers	VRS-OTD-603A,B,C,D	—	Yes	—	No/No	—	(1)	—
Transfer Pump Room Air Discharge Gravity Type Backdraft Dampers	VRS-OTD-604A,B,C,D	—	Yes	—	No/No	—	(1)	—

1. The backdraft dampers have the safety functions to open in the direction of air flow and close by counterbalance when no air flow is present.

Table A.2-3 UHS ESW Pump House Ventilation System Equipment Alarms, Displays, and Control Functions

Equipment/Instrument Name	MCR\RSC Alarm	MCR Display	MCR\RSC Control Function	RSC Display
ESW Pump Room Exhaust Fan (VRS-MFN-601A,B,C,D)	No	Yes	Yes	Yes
Transfer Pump Room Exhaust Fan (VRS-MFN-602A,B,C,D)	No	Yes	Yes	Yes
ESW Pump Room Unit Heater (VRS-MEH-601A,B,C,D, VRS-MEH-602A,B,C,D)	No	Yes	Yes	Yes
Transfer Pump Room Unit Heater (VRS-MEH- 603A,B,C,D)	No	Yes	Yes	Yes

Figure A.2-1 UHS ESW Pump House Ventilation System



Appendix A.3 Plant-Specific Structures

A.3.1 Inspections, Tests, Analyses, and Acceptance Criteria

[Table A.3-1](#) describes the inspections, tests analyses, and associated acceptance criteria for the ultimate heat sink related structure (UHSRS), essential service water pipe tunnel (ESWPT), and power source fuel storage vault (PSFSV).

Table A.3-1 UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1 The structural configurations of the UHSRS, ESWPT and PSFSV are as described in Table A.3-2 and as shown in FSAR Figures 3.8-201 through 3.8-214 .	1 Inspections will be performed to verify that the as-built UHSRS, ESWPT and PSFSV conform to the structural configurations as described in Table A.3-2 and as shown in FSAR Figures 3.8-201 through 3.8-214 .	1 The as-built UHSRS, ESWPT and PSFSV conform to the structural configurations as described in FSAR Figures 3.8-201 through 3.8-214 and Table A.3-2 with the following tolerances: 1) Thickness of exterior walls below plant grade: +12 inches/-1 inch 2) Thickness of exterior walls above plant grade, and interior walls: +1/-1 inch 3) Thickness of floors: +1/-1 inch 4) Floor level: +1/-1 inch.
2.a Divisional flood barriers are provided in the UHSRS, ESWPT and PSFSV to protect against internal flooding as shown in Figure A.3-1 .	2.a An inspection will be performed to verify that the as-built divisional flood barriers in the UHSRS, ESWPT and PSFSV exist as shown in Figure A.3-1 .	2.a The as-built divisional flood barriers in the UHSRS, ESWPT and PSFSV that protect against internal flooding exist as shown in Figure A.3-1 .
2.b Deleted	2.b Deleted	2.b Deleted
3 Deleted	3 Deleted	3 Deleted
4 For the UHSRS, ESWPT and PSFSV, external walls below flood level are a minimum of two feet thick as shown in Table A.3-2 to protect against water seepage.	4 An inspection will be performed to verify that the as-built external walls below flood level for the UHSRS, ESWPT and PSFSV are a minimum of two feet thick as shown in Table A.3-2 .	4 For the UHSRS, ESWPT and PSFSV, the as-built external walls below flood level are a minimum of two feet thick as shown in Table A.3-2 to protect against water seepage.
5.a Deleted	5.a Deleted	5.a Deleted
5.b Deleted	5.b Deleted	5.b Deleted
6 Deleted	6 Deleted	6 Deleted

Table A.3-1 UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
7. Redundant safe shutdown components and associated electrical divisions in the UHSRS, ESWPT and PSFSV are separated by 3-hour rated fire barriers to preserve the capability to safely shutdown the plant following a fire.	7. An inspection will be performed to verify that the as-built 3-hour rated fire barriers in the UHSRS, ESWPT and PSFSV are placed as required by the FHA.	7. The as-built 3-hour rated fire barriers are placed as required by the FHA for separation of redundant safe shutdown components and associated electrical divisions in the UHSRS, ESWPT and PSFSV, to preserve the capability to safely shutdown the plant following a fire.
8.a Penetrations and openings, other than ventilation ducts, through fire barriers of the UHSRS, ESWPT and PSFSV are protected against fire.	8.a An inspection will be performed to verify that the as-built penetrations and openings, other than ventilation ducts, through fire barriers of the UHSRS, ESWPT and PSFSV identified in the FHA are sealed or can be closed with fire rated components consistent with the fire resistance rating of the associated barrier.	8.a As-built penetrations and openings, other than ventilation ducts, through fire barriers of the UHSRS, ESWPT and PSFSV identified in the FHA are sealed or can be closed with fire rated components (e.g., fire doors in door openings and penetration seals) consistent with the fire resistance rating of the associated barrier.
8.b Ventilation ducts that penetrate fire barriers are protected by fire dampers.	8.b An inspection will be performed to verify that fire dampers are installed in the as-built ventilation ducts that penetrate the fire barriers of the UHSRS, ESWPT and PSFSV identified in the FHA.	8.b Fire dampers are installed in the as-built ventilation ducts that penetrate the fire barriers of the UHSRS, ESWPT and PSFSV identified in the FHA.
9. The UHSRS, ESWPT and PSFSV can withstand design-basis loads.	9.i An analysis will be performed to reconcile the as-built UHSRS with the structural design-basis loads.	9.i Reports exist and conclude that the as-built UHSRS can withstand design-basis loads.
	9.ii An analysis will be performed to reconcile the as-built ESWPT with the structural design-basis loads.	9.ii Reports exist and conclude that the as-built ESWPT can withstand design-basis loads.
	9.iii An analysis will be performed to reconcile the as-built PSFSV with the structural design-basis loads.	9.iii Reports exist and conclude that the as-built PSFSV can withstand design-basis loads.

Table A.3-1 UHSRS, ESWPT and PSFSV Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
10. SSCs that require evaluation in the seismic fragilities task of a seismic margin analysis have high confidence of low probability of failure (HCLPF) values equal to or greater than the review level earthquake.	10.a Analyses will be performed to verify that the SSCs requiring evaluation in the seismic fragilities task of a seismic margin assessment have HCLPF values equal to or greater than the review level earthquake.	10.a Reports exist and conclude that the SSCs evaluated in the seismic fragilities task of the seismic margin assessment have HCLPF values equal to or greater than the review level earthquake.
	10.b Inspection and analysis will be performed to verify that as-built SSCs requiring evaluation in the seismic fragilities task of a seismic margin assessment are bounded by conditions used in the seismic margin assessment.	10.b A report exists and concludes that the as-built SSCs requiring evaluation in the seismic fragilities task of a seismic margin assessment are bounded by the conditions used in the seismic margin assessment.

Table A.3-2 Definition of Wall Thicknesses for Safety-Related Structures: UHSRS

Wall or Section Description	Column Lines	Floor Elevation or Elevation Range	Concrete Thickness	Applicable Radiation Shielding Wall (Yes/No)
Upper Cooling Tower Wall (East and West Walls)	-	From 350.00' to 379.00'	2'-0"	No
Upper Cooling Tower Wall (North and South Walls)	-	From 318.00' to 379.00'	2'-0"	No
Lower Cooling Tower Wall (North)	-	From 282.00' to 318.00'	4'-0"	No
Lower Cooling Tower Wall (South)	-	From 282.00' to 318.00'	5'-0"	No
Lower Cooling Tower wall (East)	-	From 282.00' to 350.00'	5'-0"	No
Cooling Tower interior wall (between cells)	-	From 282.00' to 379.00'	4'-0"	No
Basin Exterior Wall	-	From 282.00' to 320.00'	5'-0"	No
Basin Interior Wall	-	From 282.00' to 320.00'	4'-0"	No
Pump Room Upper Wall (North, South and West Walls)	-	From 322.00' to 340.00'	2'-0"	No
Pump Room Upper Wall (East Wall)	-	From 322.00' to 350.00'	3'-0"	No
Pump Room Lower Wall (East Wall)	-	From 270.00' to 322.00'	4'-0"	No
Pump Room Lower Wall (South and West Walls)	-	From 270.00' to 322.00'	5'-0"	No
Pump Room Lower Wall (North walls)	-	From 270.00' to 282.00'	5'-0"	No
		From 282.00' to 322.00'	4'-0"	
Circular Wall at Fan	-	From 350.00' to 357.00'	2'-0"	No
Pipe Chase	-	From 282.00' to 298.67'	2'-0"	No
UHSRS Pipe Chase	-	From 288.00' to 298.67'	2'-0"	No
UHSRS Pipe Chase Mat Slab	-	288.00'	2'-0"	No
Mat Slab	-	270.00', 282.00'	5'-0"	No
Floor and Roof Slabs	-	298.67', 322.00', 332.50', 340.00', 350.00', 370.00', 379.00'	2'-0"	No

NOTE:

1. Dash (-) indicates not applicable.
2. Elevations based on NAVD88.

Table A.3-2 Definition of Wall Thicknesses for Safety-Related Structures: ESWPT

Wall or Section Description	Column Lines	Floor Elevation or Elevation Range	Concrete Thickness	Applicable Radiation Shielding Wall (Yes/No)
Outer Wall	-	From 261.08' to 277.75'	2'-0"	No
Interior Wall	-	From 261.08' to 277.75'	1'-0"	No
Roof Slab	-	277.75'	2'-0"	No
Mat Slab	-	261.08'	2'-0"	No

NOTE:

1. Dash (-) indicates not applicable.
2. Elevations based on NAVD88.

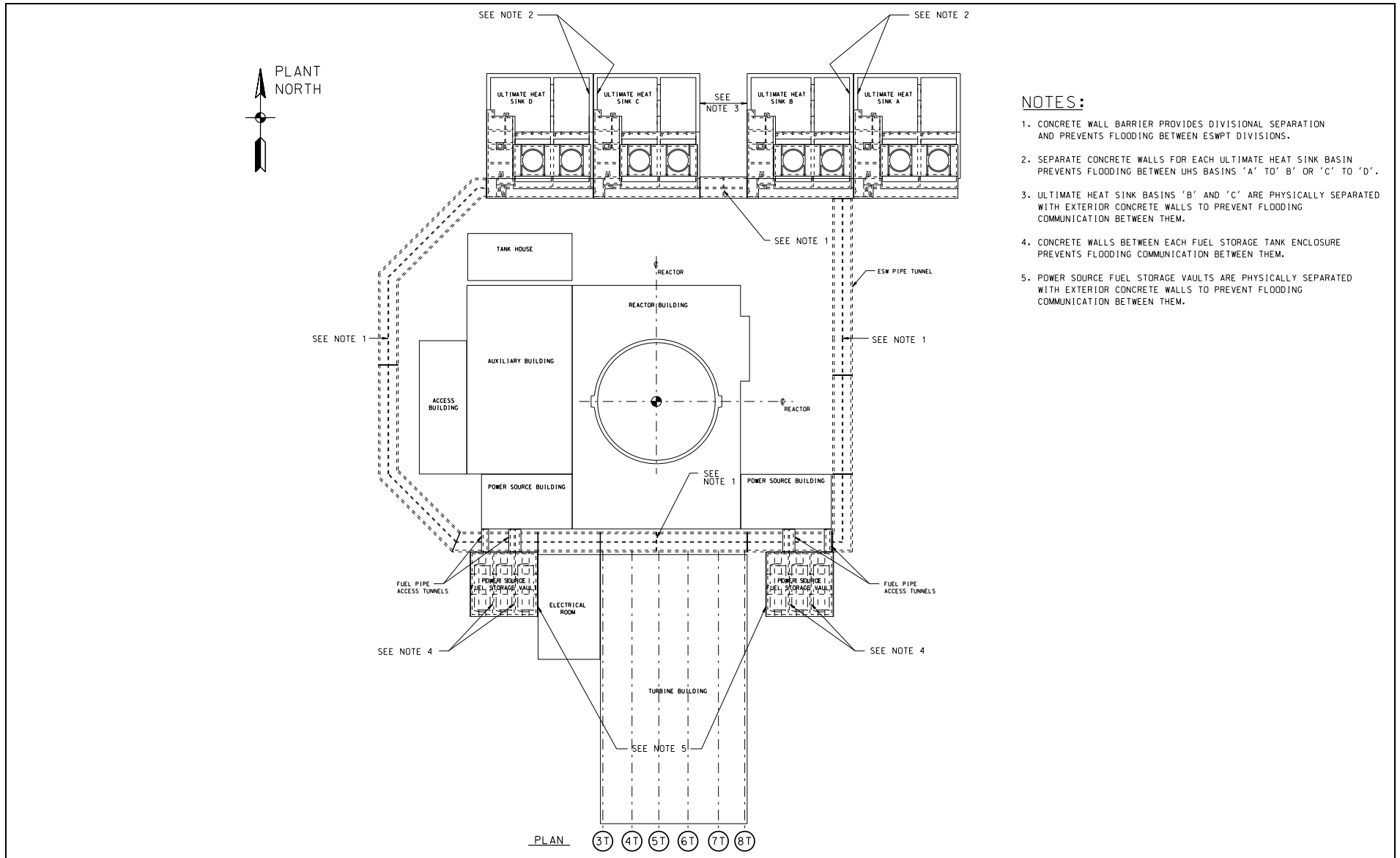
Table A.3-2 Definition of Wall Thicknesses for Safety-Related Structures: PSFSV

Wall or Section Description	Column Lines	Floor Elevation or Elevation Range	Concrete Thickness	Applicable Radiation Shielding Wall (Yes/No)
Exterior Wall (North)	-	From 277.75' to 306.21'	2'-6"	No
Exterior Wall (South)	-	From 277.75' to 306.21'	2'-6"	No
Exterior Wall (East Wall of East Vault and West Wall of West Vault)	-	From 277.75' to 306.21'	2'-6"	No
Exterior Wall (West Wall of East Vault and East Wall of West Vault)	-	From 277.75' to 306.21'	2'-6"	No
Roof Slab	-	From 308.58' to 310.25'	from 2'-4.5" to 4'-0.5"	No
Mat Slab	-	277.75'	5'-6"	No

NOTE:

1. Dash (-) indicates not applicable.
2. Elevations based on NAVD88.

Figure A.3-1 General Arrangement Plan of ESWPT, UHSRS, and PSFSV Identifying Internal Flood Barriers



Appendix A.4 Offsite Power System (Portions Outside the Scope of the Certified Design)

A.4.1 Inspections, Tests, Analyses, and Acceptance Criteria

[Table A.4-1](#) describes the inspections, tests, analyses, and associated acceptance criteria for the Offsite power system portions outside the scope of the certified design.

Table A.4-1 Offsite Power System (Portions Outside the Scope of the Certified Design) Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The electrical system has a minimum of two independent offsite transmission circuits from the transmission network (TN) to the safety buses with no intervening non-safety buses (direct connection).	1. Inspection of the as-built transmission circuits will be performed.	1. The as-built electrical system has two independent offsite transmission circuits from the TN to the safety buses with no intervening non-safety buses (direct connection).
2. The offsite TN, during steady state operation, does not cause voltage variations beyond an acceptable tolerance of the loads' nominal ratings.	2. Analyses of the as-built offsite TN voltage variability and steady state load requirements will be performed.	2. A report exists and concludes that the as-built offsite TN, during steady state operation, does not cause voltage variations beyond design limits.
3. The offsite TN normal steady state frequency is within an acceptable tolerance of 60 Hz during recoverable periods of system instability.	3. Analyses of the as-built offsite TN normal steady state frequency will be performed.	3. A report exists and concludes that the as-built TN normal steady state frequency is within design frequency limits during recoverable periods of instability.
4. The offsite transmission circuits have the capacity and capability to power the required loads during steady state, transient, and postulated events and accident conditions.	4. Analyses of the as-built offsite transmission circuits from the TN to the safety buses will be performed.	4. A report exists and concludes that the as-built offsite transmission circuits have the capacity and capability to power the required loads during steady state, transient, and postulated events and accident conditions.
5.a Independence between the offsite circuits and the onsite Class 1E electrical system and components is maintained.	5.a Tests and analyses on the as-built offsite circuits and onsite Class 1E electrical system and components will be performed.	5.a A report exists and concludes there is electrical independence between the as-built offsite circuits and as-built Class 1E electrical system and components.
5.b The offsite circuits are physically separated from the onsite Class 1E electrical system and components.	5.b Inspections of the as-built offsite circuits and onsite Class 1E electrical system and components will be performed.	5.b The as-built offsite circuits are physically separated from the as-built onsite Class 1E electrical system and components.

Table A.4-1 Offsite Power System (Portions Outside the Scope of the Certified Design) Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6. Lightning protection and grounding features are provided for the offsite circuits from the TN to the safety buses.	6. Inspection of the as-built offsite circuits from the TN to the safety buses will be performed.	6. Lightning protection and grounding features exist for the system and components of the offsite circuits from the TN to the safety buses.
7. Alarms and displays for monitoring the switchyard equipment status are provided in the MCR.	7. Inspection will be performed for the retrievability of the as-built alarms and displays for monitoring the switchyard equipment status in the as-built MCR.	7. Alarms and displays for monitoring the switchyard equipment status can be retrieved in the as-built MCR.
8. If power through the preferred power supply is not available, the offsite electrical system has the capability to automatic fast transfer to the non-preferred power supply if available.	8. Inspection of the as-built offsite electrical system will be performed.	8. The as-built offsite electrical system is automatically transferred to the non-preferred power supply if power is not available through the preferred power supply.
9. The switchyard agreement and protocols between the nuclear power plant (NPP) and the TN system owner/operator assess the risk and probability of a loss of offsite power due to performing maintenance activities on the electrical system.	9. Inspection of the switchyard agreement and protocols between the NPP and the TN owner/operator will be performed.	9. The switchyard agreement and protocols between the NPP and the TN owner/operator assess the risk and probability of a loss of offsite power due to performing maintenance activities on the electrical system.
10. The probability of losing electric power from any of the remaining supplies as a result of, or coincident with, the loss of power generated by the nuclear unit, the loss of power from the TN, or the loss of power from the onsite electric power supplies, is minimized.	10. Analyses of the as-built offsite electrical system for transient stability will be performed.	10. A report exists and concludes that the probability of losing electric power from any of the remaining supplies as a result of, or coincident with the loss of power generated by the nuclear unit, the loss of power from the TN, or the loss of power from the onsite electric power supplies is minimized.

Appendix A.5 Plant-Specific Process Effluent Radiation Monitoring and Sampling (PERMS)

A.5.1 Inspections, Tests, Analyses, and Acceptance Criteria

Table A.5-1 describes the inspections, tests, analyses, and associated acceptance criteria for the plant-specific Process Effluent Radiation Monitoring and Sampling (PERMS).

Table A.5-1 Process Effluent Radiation Monitoring and Sampling System Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The PERMS includes the radiation monitor as identified in Table A.5-2 .	1. An inspection will be performed of the as-built radiation monitor identified in Table A.5-2 .	1. The as-built PERMS includes the radiation monitor as identified in Table A.5-2 .

Table A.5-2 Process Effluent Radiation Monitoring and Sampling System Equipment Characteristics

PERMS Monitor Name	Detector Number	Safety Related	Seismic Category I	Class 1E/ Harsh	Location
Startup Steam Generator Blowdown Heat Exchanger Downstream Radiation Monitor	RMS-RE-037	No	No	No/No	(Note 1)

Note 1: The monitor is located adjacent to Startup Generator Blowdown Equipment shown in [FSAR Figure 1.2-1R](#) (Sheet 2 of 2).

Appendix A.6 Interim Radwaste Storage Facility (IRSF) Radiation Protection and Monitoring

A.6.1 Inspections, Tests, Analyses, and Acceptance Criteria

[Table A.6-1](#) describes the inspections, test, and analyses, and associated acceptance criteria for the IRSF.

Table A.6-1 Interim Radwaste Storage Facility (IRSF) Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The functional arrangement of the IRSF area and airborne radiation monitoring system is as described in Table A.6-3 .	1. Inspection of the as-built IRSF area and airborne radiation monitoring system will be performed.	1. The as-built area and airborne radiation monitoring system conforms to the functional arrangement as described in Table A.6-3 .
2. Shielding walls and ceilings in the IRSF building are provided to maintain the maximum dose rates less than those specified in Table A.6-2 .	2. Inspections will be performed to verify that the as-built IRSF building conforms to the shielding wall and ceiling concrete thicknesses as described in FSAR Table 11AA-204 .	2. The as-built shielding walls and ceilings in the IRSF building conform to the concrete thicknesses as described in FSAR Table 11AA-204 .

Table A.6-2 Radiation Zone Designations

Zone	Dose Rates
I	≤ 0.25 mrem/h
II	≤ 1.0 mrem/h
III	≤ 2.5 mrem/h
IV	≤ 15.0 mrem/h
V	≤ 100.0 mrem/h
VI	≤ 1.0 rem/h
VII	≤ 10.0 rem/h
VIII	≤ 100.0 rem/h
IX	≤ 500.0 rad/h
X	> 500.0 rad/h

Table A.6-3 Interim Radwaste Storage Facility (IRSF) Radiation Monitoring System Equipment Characteristics

Monitor Name	Detector Number	Safety Related	Seismic Category I	Class 1E/Harsh
IRSF Area Radiation Monitor	RME-RE-120	No	No	No/No
IRSF Exhaust Fan Airborne Radiation Monitor	RME-RE-121	No	No	No/No

Appendix A.7 Fire Protection System (Portions Outside the Scope of the Certified Design)

A.7.1 Inspections, Tests, Analyses, and Acceptance Criteria

Table A.7-1 describes the inspections, tests, analyses, and associated acceptance criteria for those portions of the Fire Protection System that are outside the scope of the certified design.

Table A.7-1 Fire Protection System (Portions Outside the Scope of the Certified Design)

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1. The seismic standpipe system can be supplied from a seismic Category I water source (ESWS) with a capacity of at least 18,000 gallons.	1. Tests and analyses will be performed on the as-built system to confirm the ability of the ESWS to supply water to the seismic standpipe system.	1. A report exists and concludes that the seismic standpipe system can be supplied with water from the ESWS with a capacity of at least 18,000 gallons.
2. The fire protection system water supply is from one freshwater lake of sufficient size with two separate and independent suction in one intake structure.	2. Inspections, tests and analysis will be performed of the as-built fire protection water supply capability.	2. A report exists and concludes that each suction from a freshwater lake has the capability to supply the as-built sprinkler system plus manual hose streams (500 gpm) to support fire suppression activities for a period of two hours or longer, and the capacity of the lake is not less than 300,000 gallons.

Appendix B Emergency Planning

Emergency Planning ITAAC are provided in [Table B-1](#).

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
1.0 Emergency Classification System			
<p>10 CFR 50.47(b)(4) – A standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters, is in use by the nuclear facility licensee, and State and local response plans call for reliance on information provided by facility licensees for determinations of minimum initial offsite response measures.</p>	<p>1.1 A standard emergency classification and emergency action level (EAL) scheme exists, and identifies facility system and effluent parameters constituting the bases for the classification scheme. [D.1**]</p> <p>[**D.1 corresponds to NUREG-0654 /FEMA-REP-1 evaluation criteria.]</p> <p>ITAAC element addressed in: COL EP II.D.1</p>	<p>1.1 An inspection of the control room, technical support center (TSC), and emergency operations facility (EOF) will be performed to verify that they have displays for retrieving facility system and effluent parameters that constitute the bases for the classification scheme in Appendix 1, Section 5, of the NAPS Unit 3 COL Emergency Plan.</p>	<p>1.1.1 The specific parameters identified in Emergency Plan Appendix 1, Section 5 have been retrieved and displayed in the control room, TSC, and EOF.</p> <p>1.1.2 The ranges available in the control room, TSC, and EOF encompass the values for the specific parameters identified in Emergency Plan Appendix 1, Section 5.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
2.0 Notification Methods and Procedures			
<p>10 CFR 50.47(b)(5) – Procedures have been established for notification, by the licensee, of State and local response organizations and for notification of emergency personnel by all organizations; the content of initial and follow-up messages to response organizations and the public has been established; and means to provide early notification and clear instruction to the populace within the plume exposure pathway Emergency Planning Zone have been established.</p>	<p>2.1 The means exist to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1]</p> <p>ITAAC element addressed in: COL EP II.E.1</p>	<p>2.1 A test will be performed of the capabilities.</p>	<p>2.1 A means exists to notify responsible organizations has been established via the Operational Hot Line among the control room, the Commonwealth of Virginia, Caroline County, Hanover County, Louisa County, Orange County, and Spotsylvania County.</p>
	<p>2.2 The means exist to notify emergency response personnel. [E.2]</p> <p>ITAAC element addressed in: COL EP II.E.2</p>	<p>2.2 A test will be performed of the capabilities.</p>	<p>2.2 A means exists to notify the NAPS Unit 3 emergency response organization.</p>
	<p>2.3 The means exist to notify and provide instructions to the populace within the plume exposure EPZ. [E.6]</p> <p>ITAAC element addressed in: COL EP II.E.6</p>	<p>2.3 The full test of notification capabilities will be conducted.</p>	<p>2.3 A means exists to notify and provide instructions to the public in accordance with the emergency plan requirements.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Communications			
<p>10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.</p>	<p>3.1 The means exist for communications between the control room, TSC, EOF, principal State and local emergency operations centers (EOCs), and radiological field assessment teams. [F.1.d] NOTE: Tier 1 of US-APWR Design Control Document (DCD) addresses the control room and TSC portions of this EP Program Element in the following Design Commitments (DC):</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, DC #2 	<p>3.1.1 NOTE: For communications between the control room, TSC, EOF, principal State and local emergency operations centers, and radiological field assessment teams, Tier 1 of the US-APWR Design Control Document (DCD) addresses the following Inspections, Tests, Analyses:</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, Item #2 <p>3.1.2 A test will be performed of the EOF communications capabilities.</p>	<p>3.1.1 NOTE: For communications between the control room, TSC, EOF, principal State and local emergency operations centers, and radiological field assessment teams, Tier 1 of the US-APWR Design Control Document (DCD) addresses the following Acceptance Criteria:</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, Item #2 <p>3.1.2 Communications are established between the control room, TSC, EOF, principal State and local EOCs, and radiological field assessment teams.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Communications (continued)			
	<p>3.1 The means exist for communications from the control room, TSC, and EOF to the NRC headquarters and regional office EOCs (including establishment of the Emergency Response Data System (ERDS) between the onsite computer system and the NRC Operations Center.) [F.1.f] NOTE: Tier 1 of the US-APWR Design Control Document (DCD) addresses the control room, TSC, and ERDS portions of this EP Program Element in the following Design Commitments (DC):</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, DC #3 	<p>3.1.1 NOTE: For communications from the control room and TSC to the NRC headquarters and regional office EOCs (including establishment of the ERDS between the onsite computer system and the NRC Operations Center), Tier 1 of the US-APWR Design Control Document (DCD) addresses the following Inspections, Tests, Analyses:</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, DC #3 <p>3.1.2 A test will be performed of the EOF communications capabilities.</p>	<p>3.1.1 NOTE: For communications from the control room and TSC to the NRC headquarters and regional office EOCs (including establishment of the ERDS between the onsite computer system and the NRC Operations Center), Tier 1 of the US-APWR Design Control Document (DCD) addresses the following Acceptance Criteria:</p> <ul style="list-style-type: none"> • Table 2.7.6.10-1, DC #3 <p>3.1.2 Communications are established from the EOF to the NRC headquarters and regional office EOCs.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
4.0 Public Education and Information			
<p>10 CFR 50.47(b)(7) – Information is made available to the public on a periodic basis on how they will be notified and what their initial actions should be in an emergency (e.g., listening to a local broadcast station and remaining indoors), the principal points of contact with the news media for dissemination of information during an emergency (including the physical location or locations) are established in advance, and procedures for coordinated dissemination of information to the public are established.</p>	<p>4.1 The licensee has provided space which may be used for a limited number of the news media at the EOF. [G.3.b]</p> <p>ITAAC element addressed in: COL EP II.G.3.b</p>	<p>4.1 An inspection of the Emergency News Center will be performed to verify that space is provided for a limited number of the news media.</p>	<p>4.1 The Emergency News Center has space for a limited number of the news media.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment			
<p>10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.</p>	<p>5.1 The licensee has established a technical support center (TSC) and onsite operations support center (OSC). [H.1] NOTE: For the TSC, Tier 1 of the US-APWR Design Control Document (DCD) addresses this EP Program Element in the following Design Commitments (DC):</p> <ul style="list-style-type: none"> • Table 2.5.4-2, DC #1 • Table 2.10-1, DC #1 	<p>5.1.1 NOTE: For the TSC, Tier 1 of the US-APWR Design Control Document (DCD) addresses this EP Element in the following Inspections, Tests, Analyses:</p> <ul style="list-style-type: none"> • Table 2.5.4-2, DC #1 • Table 2.10-1, DC #1 <p>5.1.2 An inspection of the as-built OSC will be performed.</p>	<p>5.1.1 NOTE: For the TSC, Tier 1 of the US-APWR Design Control Document (DCD) addresses this EP Program Element in the following Acceptance Criteria:</p> <ul style="list-style-type: none"> • Table 2.5.4-2, DC #1 • Table 2.10-1, DC #1 <p>5.1.2.1 The OSC is located onsite, separate from the control room and TSC.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment (continued)			
			<p>5.1.1.2 The following communications equipment is provided in the as-built OSC and voice transmission and reception have been accomplished:</p> <ul style="list-style-type: none"> • Dedicated telephone to control room • Dedicated telephone to TSC • Plant page system (voice transmission only)

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment (continued)			
	<p>5.2 The licensee has established an emergency operations facility (EOF). [H.2]</p> <p>ITAAC element addressed in: COL EP II.H.2</p>	<p>5.2 An inspection and analysis of the EOF will be performed.</p>	<p>5.2.1 A report exists and concludes that the EOF has at least 243 square meters (2,625 square feet).</p> <p>5.2.2 Voice transmission and reception have been accomplished between the EOF and TSC.</p> <p>5.2.3 The EOF has the means to acquire, display and evaluate radiological, meteorological, and plant system data pertinent to determining offsite protective measures.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment			
<p>10 CFR 50.47(b)(9) – Adequate methods, systems, and equipment for assessing and monitoring actual or potential offsite consequences of a radiological emergency condition are in use.</p>	<p>6.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [I.2]</p> <p>ITAAC element addressed in: COL EP II.1.2, Appendix 2</p>	<p>6.1 A test of the emergency plan will be conducted by performing an exercise or drill to verify the capability to perform accident assessment.</p>	<p>6.1 An exercise or drill has been accomplished, including use of selected monitoring parameters identified in the EAL thresholds listed in the Emergency Plan Appendix 1, Section 5, to assess simulated degraded plant conditions and initiate protective actions in accordance with the following criteria:</p> <p>A. Accident Assessment and Classification</p> <ol style="list-style-type: none"> 1. Initiating conditions identified, EALs parameters determined, and the emergency correctly classified throughout the drill. 2. Protective action recommendations developed and communicated to appropriate authorities.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
			<p>B. Radiological Assessment and Control</p> <ol style="list-style-type: none"> 1. Onsite radiological surveys performed and samples collected. 2. Radiation exposure of emergency workers monitored and controlled. 3. Field monitoring teams assembled and deployed. 4. Field team data collected and disseminated. 5. Dose projections developed. 6. The decision whether to issue radioprotective drugs to NAPS emergency workers made.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	<p>6.2 The means exist to determine the source term of releases of radioactive material within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors. [I.3]</p> <p>ITAAC element addressed in: COL EP II.I.3, Appendix 2</p>	<p>6.2 An analysis of emergency plan implementing procedures will be performed.</p>	<p>6.2 A report exists and concludes a methodology has been established to determine source term of releases of radioactive materials within plant systems, and the magnitude of the release of radioactive materials based on plant system parameters and effluent monitors.</p>
	<p>6.3 The means exist to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions. [I.4]</p> <p>ITAAC element addressed in: COL EP II.I.4, Appendix 2</p>	<p>6.3 An analysis of emergency plan implementing procedures will be performed.</p>	<p>6.3 A report exists and concludes a methodology has been established to continuously assess the impact of the release of radioactive materials to the environment, accounting for the relationship between effluent monitor readings, and onsite and offsite exposures and contamination for various meteorological conditions.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	<p>6.4 The means exist to acquire and evaluate meteorological information. [I.5]</p> <p>ITAAC element addressed in: COL EP II.I.5</p>	<p>6.4 An inspection of the control room, TSC, and EOF will be performed to verify the availability of the following meteorological data is available:</p> <ul style="list-style-type: none"> • Wind speed (at 10 m and 48.4 m) • Wind direction (at 10 m and 48.4 m) • Ambient air temperature (at 10 m) • Differential air temperature (between 10 m and 48.4 m) 	<p>6.4 The following meteorological data is available in the control room, TSC, and EOF:</p> <ul style="list-style-type: none"> • Wind speed (at 10 m and 48.4 m) • Wind direction (at 10 m and 48.4 m) • Ambient air temperature (at 10 m) • Differential air temperature (between 10 m and 48.4 m)

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	<p>6.5 The means exist to make rapid assessments of actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways, including activation, notification means, field team composition, transportation, communication, monitoring equipment, and estimated deployment times. [I.8]</p> <p>ITAAC element addressed in: COL EP II.I.8</p>	<p>6.5 An analysis of emergency plan implementing procedures will be performed.</p>	<p>6.5 A report exists that confirms a methodology has been established to provide rapid assessment of the actual or potential magnitude and locations of any radiological hazards through liquid or gaseous release pathways.</p>
	<p>6.6 The capability exists to detect and measure radioiodine concentrations in air in the plume exposure EPZ, as low as 10⁻⁷ µCi/cc (microcuries per cubic centimeter) under field conditions. [I.9]</p> <p>ITAAC element addressed in: COL EP II.I.9</p>	<p>6.6 A test of NAPS field survey instrumentation will be performed to verify the capability to detect airborne concentrations as low as 1E-07 microcuries per cubic centimeter.</p>	<p>6.6 Instrumentation used for monitoring I-131 to detect airborne concentrations as low as 1E-07 microcuries per cubic centimeter has been provided.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	<p>6.7 The means exist to estimate integrated dose from the projected and actual dose rates, and for comparing these estimates with the EPA protective action guides (PAGs). [I.10]</p> <p>ITAAC element addressed in: COL EP II.I.10, Appendix 2</p>	<p>6.7 An analysis of emergency plan implementing procedures will be performed to verify that a methodology is provided to establish means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the following isotopes – Kr-88, Ru-106, I-131, I-132, I-133, I-134, I-135, Te-132, Xe-133, Xe-135, Cs-134, Cs-137, Ce-144.</p>	<p>6.7 A report exists and concludes a methodology has been established for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the specified isotopes (Kr-88, Ru-106, I-131, I-132, I-133, I-134, I-135, Te-132, Xe-133, Xe-135, Cs-134, Cs-137, Ce-144), and for comparing the dose estimates with the EPA PAGs.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
7.0 Protective Response			
<p>10 CFR 50.47(b)(10) – A range of protective actions has been developed for the plume exposure EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure EPZ appropriate to the locale have been developed.</p>	<p>7.1 The means exist to warn and advise onsite individuals of an emergency, including those in areas controlled by the operator, including: [J.1]</p> <ul style="list-style-type: none"> a. employees not having emergency assignments; b. visitors; c. contractor and construction personnel; and d. other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area. 	<p>7.1 A test of the onsite warning and communications capability will be performed during a drill or exercise.</p>	<p>7.1.1 During a drill or exercise, notification and instructions were provided to onsite workers and visitors, within the Protected Area, over the plant public announcement system.</p> <p>7.1.2 During a drill or exercise, audible warnings were provided to individuals outside the Protected Area, but within the Owner Controlled Area.</p>
<p>ITAAC element addressed in: COL EP II.J.1</p>			

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills			
<p>10 CFR 50.47(b)(14) – Periodic exercises are (will be) conducted to evaluate major portions of emergency response capabilities, periodic drills are (will be) conducted to develop and maintain key skills, and deficiencies identified as a result of exercises or drills are (will be) corrected.</p>	<p>8.1 Licensee conducts a full-participation exercise to evaluate major portions of emergency response capabilities, which includes participation by each State and local agency within the plume exposure EPZ, and each State within the ingestion control EPZ. [N.1]</p>	<p>8.1 A full-participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.</p>	<p>8.1.1 The exercise is completed within the specified time periods of 10 CFR 50, Appendix E, and a report exists that confirms onsite exercise objectives listed below have been met and there are no uncorrected onsite exercise deficiencies.</p>
<p>ITAAC element addressed in: COL EP II.N.1</p>			<p><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>A. Accident Assessment and Classification</p> <p>1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise.</p> <p>Standard Criteria:</p> <p>a. Determine the correct highest emergency classification level based on events which were in progress, considering past events and their impact on the current conditions, within 15 minutes from the time the initiating condition(s) or EAL(s) is (are) identified.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>B. Notifications</p> <p>1. Demonstrate the ability to alert, notify, and mobilize site emergency response personnel.</p> <p>Standard Criteria:</p> <p>a. Initiate activation of the emergency recall system following initial event classification for an Alert or higher.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>2. Demonstrate the ability to notify responsible State and local government agencies within 15 minutes and the NRC within 60 minutes after declaring an emergency.</p> <p>a. Initiate transmittal of initial information to the Commonwealth of Virginia and risk jurisdictions using the designated emergency plan implementing procedure (EPIP) within 15 minutes of event classification.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <ul style="list-style-type: none"> b. Initiate transmittal of follow-up information to the Commonwealth of Virginia and risk jurisdictions using the designated EPIP within appropriate interval. c. Initiate transmittal of initial information to the Nuclear Regulatory Commission (NRC) using the designated EPIP within 60 minutes of event classification. <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions.</p> <p>Standard Criteria:</p> <p>a. Initiate notification of onsite individuals (via plant page or telephone), using the designated EPIP within 15 minutes of notification.</p> <p>4. Demonstrate the capability of the Alert and Notification System (ANS) sirens to operate properly when required.</p> <p>Standard Criteria:</p> <p>a. 90% of the sirens operate properly.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>C. Emergency Response</p> <p>1. Demonstrate the capability to direct and control emergency operations.</p> <p>Standard Criteria:</p> <p>a. Command and control is demonstrated by the control room in the early phase of the emergency and the technical support center (TSC).</p>

(continued)

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>2. Demonstrate the ability to transfer emergency direction from the control room (simulator) to the TSC.</p> <p>Standard Criteria:</p> <p>a. Briefings were conducted prior to turnover responsibility. Personnel document transfer of duties.</p> <p>3. Demonstrate the ability to prepare for around-the-clock staffing requirements.</p> <p>Standard Criteria:</p> <p>a. Complete 24-hour staff assignments.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			<p>8.1.1 (continued)</p> <p>4. Demonstrate the ability to perform assembly and accountability for all onsite individuals during an emergency requiring protected area assembly and accountability.</p> <p>Standard Criteria:</p> <p>a. Protected area personnel assembly and accountability completed within 30 minutes following initiation of assembly and accountability measures.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>D. Emergency Response Facilities</p> <p>1. Demonstrate activation of the operational support center (OSC), and full functional operation of the TSC and emergency operations facility (EOF).</p> <p>Standard Criteria:</p> <p>a. The TSC, OSC, and EOF are activated within about 60 minutes of the initial notification.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			<p>8.1.1 (continued)</p> <p>2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC, EOF, and joint information center (JIC), as appropriate.</p> <p>Standard Criteria:</p> <p>a. Demonstrate the adequacy of the emergency equipment in the emergency response facilities.</p> <p>b. The <i>Security Team Leader</i> implements and follows applicable EPIPs.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>c. The Health Physics (HP) personnel implement the designated EPIP provisions if an onsite or offsite release has occurred.</p> <p>3. Demonstrate the adequacy of communications for all emergency support resources.</p> <p>Standard Criteria:</p> <p>a. Emergency response facility personnel are able to operate all specified communication systems.</p>

(continued)

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <ul style="list-style-type: none"> b. Clear primary or backup communications links are established and maintained for the duration of the exercise. <p>E. Radiological Assessment and Control</p> <ul style="list-style-type: none"> 1. Demonstrate the ability to obtain onsite radiological surveys and samples. <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. HP personnel demonstrate the ability to obtain appropriate instruments (range and type) and take surveys. <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>b. Airborne samples are taken when the conditions indicate the need for the information.</p> <p>2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers.</p> <p>Standard Criteria:</p> <p>a. Emergency workers are issued selfreading dosimeters when radiation levels require, and exposures are controlled to 10 CFR 20 occupational dose limits (unless the Emergency Coordinator/EOF Director authorizes emergency limits).</p>
<i>(continued)</i>			

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <ul style="list-style-type: none"> b. Exposure records are available. c. Emergency workers include Security and personnel within all emergency facilities. <p>3. Demonstrate the ability to assemble and deploy field monitoring teams.</p> <p>Standard Criteria:</p> <ul style="list-style-type: none"> a. One field monitoring team is ready to be deployed within 60 minutes of being requested, and no later than 90 minutes from the declaration of an Alert or higher emergency. <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>4. Demonstrate the ability to satisfactorily collect and disseminate field team data.</p> <p>Standard Criteria:</p> <p>a. Field team data to be collected is dose rate or counts per minute (cpm) from the plume, both open and closed window, and air sample (gross/net cpm) for particulate and iodine, if applicable.</p> <p>b. Satisfactory data dissemination is from the field team to HP (<i>Plume Tracking/Dose Assessment</i>) personnel.</p>
<i>(continued)</i>			

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>5. Demonstrate the ability to develop dose projections.</p> <p>Standard Criteria:</p> <p>a. Timely and accurate dose projections are performed in accordance with EIPs.</p> <p>6. Demonstrate the ability to make the decision whether to issue radioprotective drugs to emergency workers.</p> <p>Standard Criteria:</p> <p>a. Radioprotective drugs are taken (simulated) if the estimated dose to the thyroid will exceed 25 rem committed dose equivalent (CDE).</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			<p>8.1.1 (continued)</p> <p>7. Demonstrate the ability to develop appropriate protective action recommendation(s) (PAR(s)) and notify appropriate authorities within 15 minutes of development.</p> <p>Standard Criteria:</p> <p>a. Total effective dose equivalent (TEDE) and CDE dose projections from the dose assessment computer code are compared to criteria in EIPs.</p> <p>b. PAR(s) is (are) developed within 15 minutes of data availability, as appropriate.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.1 (continued)</p> <p>c. PAR(s) is (are) transmitted to responsible State and local government agencies within 15 minutes of development.</p> <p>F. Public Information</p> <p>1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media.</p> <p>Standard Criteria:</p> <p>a. Media information (e.g., press releases, press briefings, electronic media) is made available following notification of Dominion External Affairs personnel.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			<p>8.1.1 (continued)</p> <p>2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion.</p> <p>Standard Criteria:</p> <p>a. Calls are answered in a timely manner with the correct information.</p> <p>b. Rumors are identified and addressed.</p> <p style="text-align: right;"><i>(continued)</i></p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			8.1.1 (continued)
			<p>G. Evaluation</p> <p>1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action.</p> <p>Standard Criteria:</p> <p>a. An exercise time-line is developed, followed by an evaluation of the objectives.</p> <p>b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved.</p> <p>c. Recommendations for improvement in non-objective areas are discussed.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			<p>8.1.2 Onsite emergency response personnel are mobilized in sufficient number to fill the emergency positions identified in COL EP II.B, Onsite Emergency Organization, and a report exists that confirms they successfully perform their assigned responsibilities as outlined in Acceptance Criterion 8.1.1.D, Emergency Response Facilities.</p> <p>8.1.3 The exercise is completed within the specified time periods of 10 CFR 50, Appendix E, a report exists that confirms offsite exercise objectives have been met and there are no uncorrected offsite deficiencies, or a license condition requires offsite deficiencies to be corrected prior to operation above 5% of rated power.</p>

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
9.0 Implementation Procedures			
<p>10 CFR 50, Appendix E.V - No less than 180 days prior to the schedule issuance of an operating license for a nuclear power reactor or a license to possess nuclear material, the applicant's detailed implementing procedures for its emergency plan shall be submitted to the Commission.</p>	<p>9.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.</p>	<p>9.1 An inspection will be performed to confirm that the detailed implementing procedures for the Unit 3 Emergency Plan were submitted to the NRC.</p>	<p>9.1 Each of the detailed implementing procedures for the Unit 3 Emergency Plan, as defined in Appendix 5 of the Emergency Plan, are submitted to the NRC no less than 180 days prior to fuel load.</p>

Appendix C Physical Security Hardware

C.1 Inspections, Tests, Analyses, and Acceptance Criteria

[Table C-1](#) describes the inspections, tests, analyses, and associated acceptance criteria for the plant-specific physical security hardware.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
1.a.i Not Used	1.a.i Not Used	1.a.i Not Used
1.a.ii Plant-specific vital equipment is located only in a vital area.	1.a.ii Inspections will be performed of vital equipment locations.	1.a.ii Plant-specific vital equipment is located only within a vital area.
1.b Access to vital equipment requires passage through at least two physical barriers.	1.b Inspections will be performed of vital equipment locations.	1.b Vital equipment is located within a protected area such that access to the vital equipment requires passage through at least two physical barriers.
2.a Physical barriers for the protected area perimeter are not part of vital area barriers.	2.a Inspections of the protected area perimeter barriers will be performed.	2.a Physical barriers at the perimeter of the protected area are separated from any other barrier designated as a vital area barrier.
2.b Penetrations through the protected area barrier are secured and monitored.	2.b Inspections will be performed of penetrations through the protected area barrier.	2.b Penetrations and openings of a passable size through the protected area barrier are secured and monitored by intrusion detection equipment.
2.c Unattended openings of passable size that intersect a security boundary such as underground pathways are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.	2.c Inspections will be performed of unattended openings of passable size within the protected area barriers.	2.c Unattended openings of a passable size (such as underground pathways) that intersect a security boundary (such as the protected area barrier), are protected by a physical barrier and monitored by intrusion detection equipment or provided surveillance at a frequency sufficient to detect exploitation.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
3.a Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and are of sufficient size to permit observation and assessment on either side of the barrier.	3.a Inspections of the outdoor areas adjacent to the protected area perimeter barrier will be performed.	3.a The isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area and are of sufficient size to permit observation and assessment of activities on either side of the barrier in the event of its penetration or attempted penetration.
3.b Isolation zones will be monitored with intrusion detection and assessment equipment that can provide detection and assessment of activities within the isolation zone.	3.b The intrusion detection equipment for monitoring the isolation zones will be inspected.	3.b Isolation zones are monitored by intrusion detection and assessment equipment capable of providing detection and assessment of activities within the isolation zone.
3.c Areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or are an integral part of the protected area barrier) are monitored with intrusion detection and assessment equipment that is designed to detect the attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.	3.c Inspections of areas of the protected area perimeter barrier that do not have isolation zones will be performed.	3.c Areas where permanent buildings do not allow sufficient observation distance between the intrusion detection system and the protected area barrier (e.g., the building walls are immediately adjacent to, or an integral part of, the protected area barrier) are monitored with intrusion detection and assessment equipment that detects attempted or actual penetration of the protected area perimeter barrier before completed penetration of the barrier and assessment of detected activities.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
4.a The perimeter intrusion detection system (IDS) can detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).	4.a Tests, inspections or a combination of tests and inspections of the intrusion detection system will be performed.	4.a The intrusion detection system can detect penetration or attempted penetration of the protected area perimeter barrier before completed penetration of the barrier and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).
4.b The perimeter assessment equipment can provide video image recording with real-time and play-back capability that can provide assessment of detected activities before and after each alarm annunciation at the protected area perimeter barrier.	4.b Tests, inspections or a combination of tests and inspections of the video assessment equipment will be performed.	4.b The perimeter assessment equipment is capable of real-time and play-back video image recording that provides assessment of detected activities before and after each alarm annunciation at the protected area barrier.
4.c Intrusion detection and assessment equipment at the protected area perimeter remains operational from an uninterruptible power supply in the event of the loss of normal power.	4.c Tests, inspections or a combination of tests and inspections of the uninterruptible power supply will be performed.	4.c Intrusion detection and assessment equipment at the protected area perimeter remains operational from an uninterruptible power supply in the event of the loss of normal power.
5. Isolation zones and exterior areas within the protected area are provided with illumination to permit assessment in the isolation zones and observation of activities within exterior areas of the protected area.	5. Inspections or tests of the illumination in isolation zones and exterior areas within the protected area will be performed.	5. Illumination in isolation zones and exterior areas within the protected area is 0.2 foot-candles measured horizontally at ground level or, alternatively, sufficient to permit assessment and observation.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
6.b The external walls, doors, ceilings and floors in the secondary alarm station and the last access control function for access to the protected area are bullet resistant to at least Underwriters Laboratories Ballistic Standard 752, Level 4, or National Institute of Justice Standard 0108.01, "Ballistic Resistant Protective Materials," Type III.	6.b Type test, analysis or a combination of type test and analysis of the external walls, doors, ceilings and floors in the secondary alarm station and the last access control function for access to the protected area will be performed.	6.b A report exists and concludes that the external walls, doors, ceilings, floors in the secondary alarm station and the last access control function for access to the protected area are bullet resistant to at least Underwriters Laboratories Ballistic Standard 752 Level 4, or National Institute of Justice Standard 0108.01, Type III.
7. The vehicle barrier system is installed and located at the necessary stand-off distance to protect against the design-basis threat (DBT) vehicle bombs.	7. Type test, inspections, analysis, or a combination of type tests, inspections, and analysis will be performed for the vehicle barrier system.	7. A validated report reviewed in accordance with NUREG/CR-6190 exists and concludes that the vehicle barrier system will protect against the DBT vehicle bombs based upon the stand-off distance for the system.
8.a Access control points are established to control personnel and vehicle access into the protected area.	8.a Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed.	8.a Access control points exist for the protected area and are configured to control access and are equipped with locking devices, intrusion detection equipment and surveillance equipment consistent with the intended function.
8.b Access control points are established with equipment for the detection of firearms, explosives, incendiary devices, or other items that could be used to commit radiological sabotage at the protected area personnel access points.	8.b Tests, inspections, or a combination of tests and inspections of installed systems and equipment will be performed.	8.b Detection equipment exists and is capable of detecting firearms, explosives, incendiary devices, or other items that could be used to commit radiological sabotage at the protected area personnel access control points.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
9. An access control system with numbered picture badges is installed for use by individuals who are authorized access to protected areas and vital areas without escort.	9. Tests of the access control system with numbered picture badges will be performed.	9. The access control system with numbered picture badges, is installed and provides authorized access to protected and vital areas only to those personnel with unescorted access authorization.
10.b Unoccupied vital areas are locked and alarmed with activated intrusion detection systems that annunciate in the secondary alarm station.	10.b Tests, inspections, or a combination of tests and inspections of unoccupied vital areas intrusion detection equipment and locking devices will be performed.	10.b Unoccupied vital areas are locked and intrusion is detected and annunciated in the secondary alarm station.
11.a.ii Security alarm annunciation and video assessment information are available in the secondary alarm station concurrently with the central alarm station.	11.a.ii Tests, inspections or a combination of tests and inspections of alarm annunciation and video assessment equipment will be performed.	11.a.ii Security alarm annunciation and video assessment equipment information are available in the secondary alarm station concurrently with the central alarm station.
11.b.ii The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area	11.b.ii Inspections of the secondary alarm station locations will be performed.	11.b.ii The secondary alarm station is located inside a protected area and the interior of the secondary alarm station is not visible from the perimeter of the protected area.
11.c.i The alarm system does not allow the status of a detection point, locking mechanism or access control device to be changed from the central alarm station without the knowledge and concurrence of the secondary alarm station operator.	11.c.i Tests, inspections, or a combination of tests and inspections of intrusion detection equipment and access control equipment will be performed.	11.c.i The alarm system does not allow the status of a detection point, locking mechanism or access control device to be changed from the central alarm station without the knowledge and concurrence of the secondary alarm station operator.

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
11.c.ii The alarm system does not allow the status of a detection point, locking mechanism or access control device to be changed from the secondary alarm station without the knowledge and concurrence of the central alarm station operator.	11.c.ii Tests, inspections, or a combination of tests and inspections of intrusion detection equipment and access control equipment will be performed.	11.c.ii The alarm system does not allow the status of a detection point, locking mechanism or access control device to be changed from the secondary alarm station without the knowledge and concurrence of the central alarm station operator.
11.d Central and secondary alarm stations are designed, equipped and constructed such that no single act, in accordance with the design basis threat of radiological sabotage, can simultaneously remove the ability of both the central and secondary alarm stations to: (1) detect and assess alarms, (2) initiate and coordinate an adequate response to alarms, (3) summon offsite assistance, and (4) provide effective command and control.	11.d Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.d No single act, in accordance with the design basis threat of radiological sabotage, can simultaneously remove the ability of both the central and secondary alarm stations to: (1) detect and assess alarms, (2) initiate and coordinate an adequate response to alarms, (3) summon offsite assistance, and (4) provide effective command and control.
11.e.i Not Used	11.e.i Not Used	11.e.i Not Used
11.e.ii The secondary alarm station is constructed, located, protected, and equipped to the standards for the central alarm station (alarm stations need not be identical in design but shall be equal and redundant, capable of performing all functions required of alarm stations).	11.e.ii Tests, inspections, or a combination of tests and inspections of the secondary alarm station will be performed.	11.e.ii The secondary alarm station is constructed, located, protected, and equipped to the standards for the central alarm station and is functionally redundant. (Stations need not be identical in design.)

**Table C-1 Physical Security Hardware
 (Portions Outside the Scope of the Certified Design)
 Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
12.a Plant-specific secondary security power supply system for alarm annunciator equipment and non-portable communications equipment is located within a vital area.	12.a Inspections of the plant-specific secondary security power supply system will be performed.	12.a The plant-specific secondary security power system for alarm annunciator equipment and non-portable communications equipment is located within a vital area.
13.b.ii Intrusion detection and assessment systems provide visual display and audible annunciation in the secondary alarm station.	13.b.ii Tests will be performed on Intrusion detection and assessment systems.	13.b.ii The intrusion detection system provides a visual display and audible annunciation of alarms in the secondary alarm station.
15.b Emergency exits through the protected area perimeter are alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.	15.b Tests, inspections or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	15.b Emergency exits through the protected area perimeter are alarmed with intrusion detection devices and secured by locking devices that allow prompt egress during an emergency.
16.a.ii The secondary alarm station has conventional (land line) telephone service with local law enforcement authorities and a system for communication with the main control room.	16.a.ii Tests, inspections, or a combination of tests and inspections of the secondary alarm station communications capability with local law enforcement authorities and main control room will be performed	16.a.ii The secondary alarm station is equipped with conventional (land line) telephone service with local law enforcement authorities and has a system for communication with the main control room.
16.b.ii The secondary alarm station is capable of continuous communication with security personnel.	16.b.ii Tests, inspections, or a combination of tests and inspections of the secondary alarm station continuous communication capabilities will be performed.	16.b.ii The secondary alarm station is capable of continuous communication with security officers, watchmen or armed response individuals, or other security personnel that have responsibilities during a contingency response event.

**Table C-1 Physical Security Hardware
(Portions Outside the Scope of the Certified Design)
Inspections, Tests, Analyses, and Acceptance Criteria**

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
16.c.ii Nonportable communications equipment in the secondary alarm station will remain operational from an independent power source in the event of loss of normal power.	16.c.ii Tests, inspections, or a combination of tests and inspections of the nonportable communications equipment will be performed.	16.c.ii Nonportable communication devices (including conventional telephone systems) in the secondary alarm station are wired to an independent power supply that enables those systems to remain operational (without disruption) during the loss of normal power.