Dominion®

North Anna 3 Combined License Application

Part 10: Tier 1/ITAAC

Revision 3

June 2010

REVISION SUMMARY

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 NA3 09.02.01-8, PSWS Heat Removal ITAAC Acceptance Criteria
1.1.7, Table 2.4.7-1	RAI NA3 14.03.06-1, Add ITAAC for Off-site Power Interface
Table 2.3-1	RAI 13.03-3 - Revised, Emergency Action Levels
Table 2.3-1	RAI NA3 13.03-6, Onsite Exercise Objectives in ITAAC
Table 2.3-1	RAI NA3 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 and A.6. 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 and Essential Service Water System (Portions Outside the Scope of the Certified Design)

A.1.1 Inspections, Tests, Analysis, 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 and Essential Service Water System (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 system is as shown on Figure A.1-1.	1.a	An inspection of the as-built system will be performed.	1.a	The as-built system conforms to the functional arrangement as shown on Figure A.1-1.
1.b	Each mechanical division of the system (Division A, B, C & D) is physically separated from the other divisions, except for the header portion of the transfer line piping.	1.b	Inspections of the as-built system will be performed.	1.b	Each mechanical division of the as-built system (Division A, B, C & D) is physically separated from the other divisions of the system by structural and/or fire barriers.
2.a	The ASME Code Section III components, identified in Table A.1-2, are designed and constructed in accordance with ASME Code Section III requirements.	2.a	An inspection will be conducted of the as-built components as documented in ASME design reports.	2.a	The ASME Code Section III design reports exist and conclude that the as-built components identified in Table A.1-2 are reconciled with the design documents.
2.b	The ASME Code Section III piping, identified in FSAR Table 3.2-201, is designed and constructed in accordance with ASME Code Section III requirements.	2.b	An inspection will be conducted of the as-built piping as documented in ASME design reports.	2.b	The ASME code Section III design reports exist and conclude that the as-built piping identified in FSAR Table 3.2-201 is reconciled with the design documents.
3.a	Pressure boundary welds in ASME Code Section III components, identified in Table A.1-2, meet ASME Code Section III requirements.	3.a	Inspections of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	3.a	The ASME Code Section III requirements are met for nondestructive examination of the as-built pressure boundary welds.
3.b	Pressure boundary welds in ASME Code Section III piping, identified in FSAR Table 3.2-201, meets ASME Code Section III requirements.	3.b	Inspections of the as-built pressure boundary welds will be performed in accordance with the ASME Code Section III.	3.b	The ASME Code Section III requirements are met for nondestructive examination of the as-built pressure boundary welds.

Table A.1-1 Ultimate Heat Sink System and Essential Service Water System (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 required by the ASME Code Section III to be hydrostatically tested.	4.a	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, 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 required by the ASME Code Section III to be hydrostatically tested.	4.b	The results of the hydrostatic test of the as-built piping identified in FSAR Table 3.2-201 as ASME Code Section III conform to the requirements of the ASME Code Section III.
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 seismic category I as-built equipment identified in Table A.1-2 is installed in the location identified in FSAR Table 3.2-201.	5.a.i	The seismic category I as-built equipment identified in Table A.1-2 is installed in the location identified in FSAR Table 3.2-201.
		5.a.ii	Type tests and/or analyses of the seismic category I equipment will be performed.	5.a.ii	The results of the type tests and/or analyses conclude that the seismic category I equipment can withstand seismic design basis loads without loss of safety function.
		5.a.iii	Inspections will be performed on the as-built equipment including anchorage.	5.a.iii	The as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.

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

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
5.b	Each of the seismic category piping, identified in FSAR Table 3.2-201, is designed to withstand combined normal and seismic design basis loads without a loss of its functional capability.	5.b	Inspections will be performed on the as-built piping.	5.b	Each of the as-built seismic category piping identified in FSAR Table 3.2-201 meets the seismic category requirements.
6.a	The Class 1E components, identified in Table A.1-2, are powered from their respective Class 1E division.	6.a	Tests will be performed on the as-built system by providing a simulated test signal in each Class 1E division.	6.a	The simulated test signal exists at the as-built Class 1E equipment identified in Table A.1-2 under test in the as-built system
6.b	Separation is provided between Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.	6.b	Inspections of the as-built Class 1E divisional cables and raceways will be conducted.	6.b	The as-built Class 1E electrical cables with only one division are routed in raceways assigned to the same division. There are no other safety division electrical cables in a raceway assigned to a different division.
7.	The system provides adequate heat removal capability transferred design heat load from the ESWS.	7.	Tests and analyses of the as-built system will be performed.	7.	A report exists and concludes that the as-built system provides adequate heat removal capability transferred design heat load.
8.	Controls exist 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 listed in Table A.1-2 using controls in the MCR.	8.	Controls in the MCR operate to open and close the as-built remotely operated valves listed in Table A.1-2.

Table A.1-1 Ultimate Heat Sink System and Essential Service Water System (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 to perform an active safety-related, function to change position as indicated in the table.	9.a.i	Tests or type tests of the valves will be performed that demonstrate the capability of the valve to operate under its design conditions.	9.a.i	Each valve changes position as indicated in Table A.1-2 under design conditions.
		9.a.ii	Tests of the as-built valves will be performed under pre-operational flow, differential pressure, and temperature conditions.	9.a.ii	Each as-built valve changes position as indicated in Table A.1-2 under pre-operational test conditions.
9.b	Upon the receipt of ECCS actuation signal or UHS basin low water level signal, the blowdown control valve closes automatically.	9.b	Tests will be performed using a simulated test signal.	9.b	Upon the receipt of a simulated test signal, the as-built blowdown control valve closes automatically.
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 valves 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.
9.d	Upon the receipt of ECCS actuation signal the remotely operated cooling tower bypass valves close and the remotely operated cooling tower isolation valves open automatically.	9.d	Tests of the as-built remotely operated valves will be performed using a simulated test signal.	9.d	Upon the receipt of a simulated test signal, the as-built remotely operated cooling tower bypass valves close and the as-built remotely operated cooling tower isolation valves open automatically.
10.a	Controls exist 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 in Table A.1-3 using controls in the MCR.	10.a	Controls in the MCR operate to start and stop the as-built pumps and fans listed in Table A.1-3.
10.b	The pump and fan identified in Table A.1-3 start after receiving a signal.	10.b	Tests will be performed using simulated signal.	10.b	The as-built pump and fan identified in Table A.1-3 start after receiving simulated signal.

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

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
11.	Displays of the parameters identified in Table A.1-3 can be retrieved in the MCR.	11.	Inspections will be performed for retrievability of the system parameters in the as-built MCR.	11.	The displays identified in Table A.1-3 can be retrieved in the as-built MCR.
12.	Remote shutdown console (RSC) displays and/or controls provided for the system are identified in Table A.1-3.	12.	Inspections will be performed on the as-built RSC displays and/or controls for the system.	12.	Displays and/or controls exist on the as-built RSC as identified in Table A.1-3.
13.	Each basin has a volume to satisfy the thirty day cooling water supply criteria.	13.	Inspections will be performed to verify the as-built basins include sufficient volume of water.	13.	The usable water volume of the each as-built basin is greater than or equal to 3.12×10^6 gallons.
14.	The ultimate heat sink transfer pumps and essential service water 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 pump will be performed.	14.	The as-built system meets the design, and the analysis confirms that the NPSH available exceeds the required NPSH.

Table A.1-2 Ultimate Heat Sink System and Essential Service Water System (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	Loss of Motive Power Position
Ultimate heat sink transfer pumps	UHS-OPP-001A, B, C, D	3	Yes	-	Yes/No	Start Stop	-
Ultimate heat sink cooling tower fans	UHS-OEQ-001A, B, C, D, 002A, B, C, D	-	Yes	-	Yes/No	Start Stop	-
Ultimate heat sink transfer pump discharge valves	UHS-MOV-503A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	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	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	As is
Ultimate heat sink Winter Operation basin inlet valves	UHS-MOV-508A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	As is
Ultimate heat sink cooling tower isolation valves	UHS-MOV-509A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	As is

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

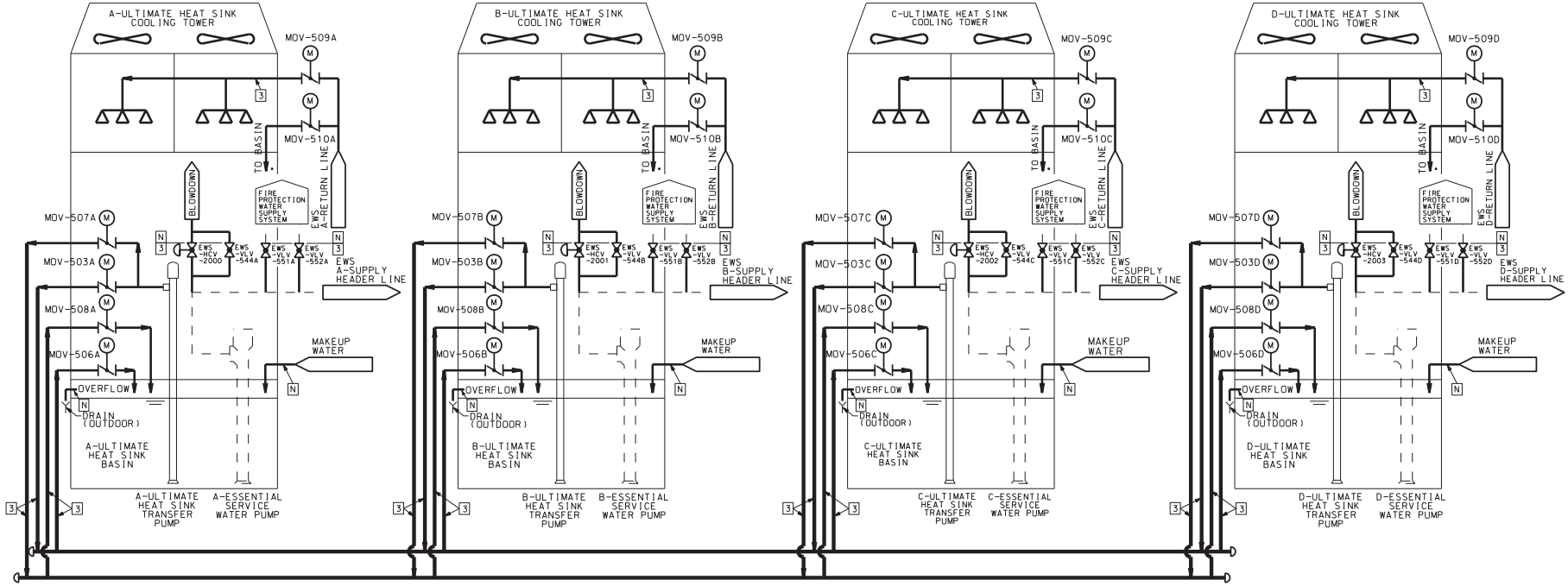
Equipment Name	Tag No.	ASME Code Section III Class	Seismic Category I	Remotely Operated Valve	Class 1E/Qual. For Harsh Envir.	Active Safety Function	Loss of Motive Power Position
Ultimate heat sink cooling tower bypass valves	UHS-MOV-510A, B, C, D	3	Yes	Yes	Yes/No	Transfer Closed Transfer Open	As is
Ultimate heat sink basin blowdown control valves	EWS-HCV-2000, 2001, 2002, 2003	3	Yes	Yes	Yes/No	Transfer Closed	Closed
Ultimate heat sink basin water level	UHS-LT-2070A, B, 2071A, B, 2072A, B, 2073A, B	-	Yes	-	Yes/No	-	-
Ultimate heat sink basin temperature	UHS-TE-2070, 2071, 2072, 2073	-	Yes	-	Yes/No	-	-

NOTE: Dash (-) indicates not applicable.

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

Equipment/Instrument Name	MCR Alarm	MCR Display	Control Function	RSC Display
Ultimate heat sink transfer pumps (UHS-OPP-001A, B, C, D)	No	Yes	Yes	Yes
Ultimate heat sink cooling tower fans (UHS-OEQ-001A, 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 basis 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-2000, 2001, 2002, 2003)	No	Yes	Yes	Yes
Ultimate heat sink basin water level (UHS-LT-2070A, B, 2071A, B, 2072A, B, 2073A, B)	Yes	Yes	Yes	Yes
Ultimate heat sink basin temperature (UHS-TE-2070, 2071, 2072, 2073)	Yes	Yes	Yes	Yes

Figure A.1-1 Ultimate Heat Sink System and Essential Service Water System (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 on Figure A.2-1	1.a	An 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 with the functional arrangement as shown on 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.	1.b	Inspections of the as-built UHS ESW pump house ventilation system will be performed.	1.b	Each mechanical division of the as-built UHS ESW pump house ventilation system is physically separated from other mechanical divisions by structural and/or fire barriers.
2	The seismic category I equipment, identified in Table A.2-2, is designed to 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 the UHS related structure.	2.a	The as-built seismic category I equipment identified in Table A.2-2 is located in the UHS related structure.
		2.b	Type tests and/or analyses of the seismic category I equipment will be performed.	2.b	The result of the type tests and/or analyses concludes that the seismic category I equipment can withstand seismic design basis loads without loss of safety function.
		2.c	Inspection will be performed on the as-built equipment including anchorage.	2.c	The as-built equipment including anchorage is seismically bounded by the tested or analyzed conditions.
3.a	The Class 1E components, identified in Table A.2-2, are powered from their respective Class 1E division.	3.a	A test will be performed on the as-built UHS ESW pump house ventilation system by providing a simulated test signal in each Class 1E division.	3.a	The simulated test signal exists only at the as-built Class 1E equipment identified in Table A.2-2 under test in the as-built 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
3.b	Separation is provided between Class 1E divisions, and between Class 1E divisions and non-Class 1E cable.	3.b	Inspections of the as-built Class 1E divisional cables and raceways will be performed.	3.b	The as-built Class 1E electrical cables with only one division are routed in raceways assigned to the same division. There are no other safety division electrical cables in a raceway assigned to a different division.
4	The UHS ESW pump house ventilation system provides and maintains the proper environmental conditions within the respective room.	4	Tests of the as-built UHS ESW pump house ventilation system will be performed.	4	The as-built UHS ESW pump house ventilation system provides and maintains the proper environmental conditions within the respective room by the exhaust fan and/or unit heater operation.
5.a	Controls exist 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 operate to start and stop the as-built exhaust fan and unit heaters identified in Table A.2-3.
5.b	The UHS ESW pump house ventilation system exhaust fans and unit heaters units identified in Table A.2-3 start after receiving a signal.	5.b	Tests of the as-built UHS ESW pump house ventilation system exhaust fans and unit heaters will be performed using real or simulated signals.	5.b	The as-built UHS ESW pump house ventilation system exhaust fans and unit heaters identified in Table A.2-3 start after receiving a signal.
6	Displays of the UHS ESW pump house ventilation system parameters identified in Table A.2-3 can be retrieved in the MCR.	6	Inspections will be performed for retrievability of the as-built UHS ESW pump house ventilation system parameters in the as-built MCR.	6	The displays identified in Table A.2-3 can be retrieved in the as-built MCR.
7.	Remote shutdown console (RSC) displays and/or controls provided for the UHS ESW pump house ventilation system are identified in Table A.2-3.	7.	Inspections will be performed on the as-built RSC displays and/or controls for the as-built UHS ESW pump house ventilation system.	7.	The displays and/or controls exist on the as-built RSC as identified in Table A.2-3.

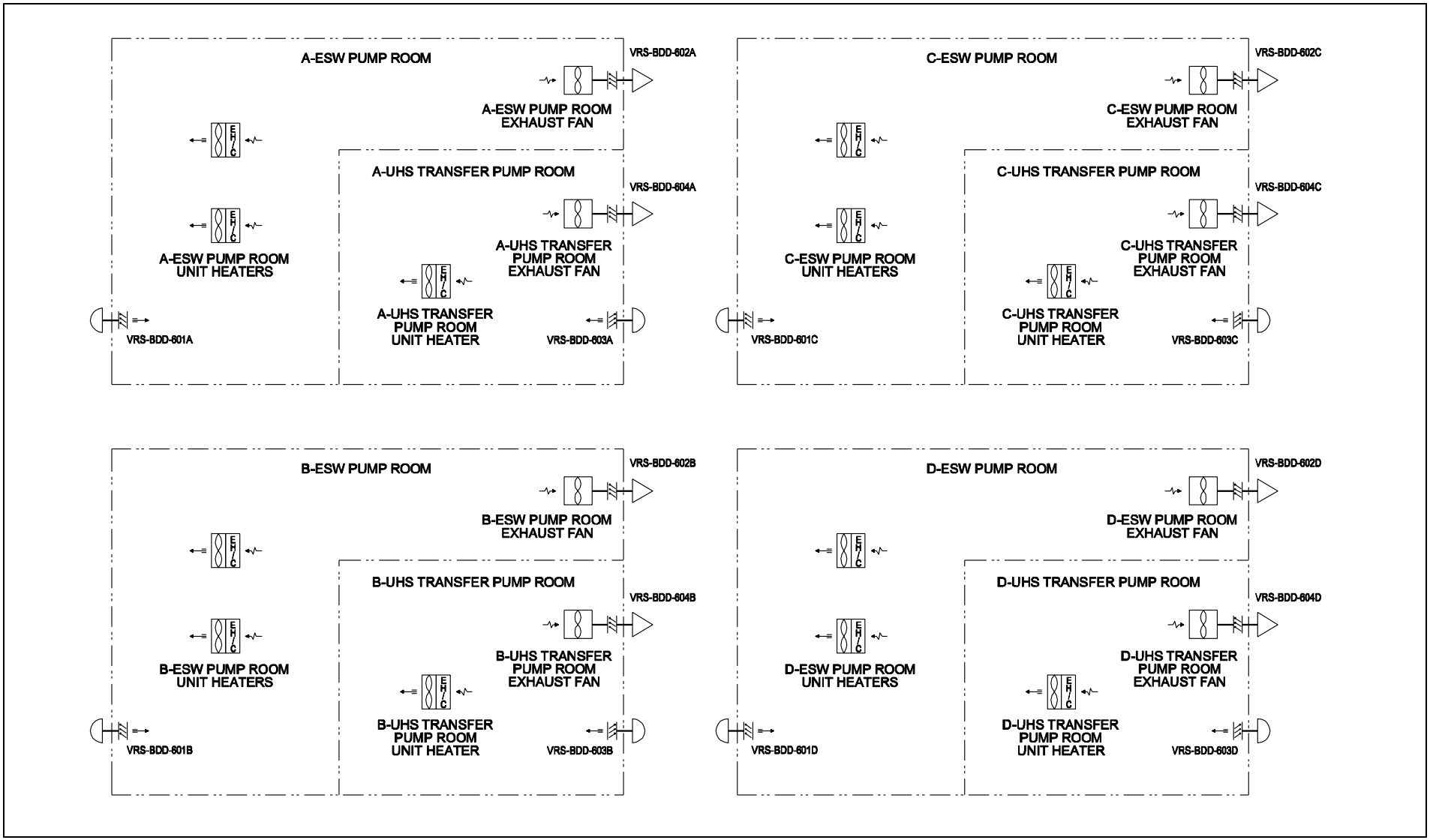
Table A.2-2 UHS ESW Pump House Ventilation System Equipment Characteristics

Equipment Name	Tag No.	ASME Code Section III Class	Seismic Category I	Remotely Operated Valve	Class 1E/Qual. For Harsh Envir.	Active Safety Function	Loss of Motive Power Position
ESW Pump Room Exhaust Fan	VRS-OFN-601A,B,C,D	-	Yes	-	Yes/No	Start	-
UHS Transfer Pump Room Exhaust Fan	VRS-OFN-602A,B,C,D	-	Yes	-	Yes/No	Start	-
ESW Pump Room Unit Heater	VRS-OEQ-601A,B,C,D, VRS-OEQ-602A,B,C,D	-	Yes	-	Yes/No	Start	-
UHS Transfer Pump Room Unit Heater	VRS-OEQ-603A,B,C,D	-	Yes	-	Yes/No	Start	-

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

Equipment/Instrument Name	MCR Alarm	MCR Display	Control Function	RSC Display
ESW Pump Room Exhaust Fan (VRS-OFN-601A,B,C,D)	No	Yes	Yes	Yes
UHS Transfer Pump Room Exhaust Fan (VRS-OFN-602A,B,C,D)	No	Yes	Yes	Yes
ESW Pump Room Unit Heater (VRS-OEQ-601A,B,C,D, VRS-OEQ-602A,B,C,D)	No	Yes	Yes	Yes
UHS Transfer Pump Room Unit Heater (VRS-OEQ-603A,B,C,D)	No	Yes	Yes	Yes
ESW Pump Room Temperature (VRS-TS-2610C,D,E,F, VRS-TS-2620C,D,E,F, VRS-TS-2630C,D,E,F, VRS-TS-2640C,D,E,F)	Yes	No	Yes	No
UHS Transfer Pump Room Temperature (VRS-TS-2615C,D,E,F, VRS-TS-2625C,D,E,F, VRS-TS-2635C,D,E,F, VRS-TS-2645C,D,E,F)	Yes	No	Yes	No

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 shown in FSAR Figures 3.8-201 through 3.8-214 and Table A.3-2.	1	Inspections of the as-built structural configurations of the UHSRS, ESWPT and PSFSV will be performed.	1	The as-built design configurations of the UHSRS, ESWPT and PSFSV are reconciled with descriptions in FSAR Figures 3.8-201 through 3.8-214 and Table A.3-2.
2.a	Divisional flood barriers are provided in the UHSRS, ESWPT and PSFSV to protect against the internal and external flooding.	2.a	An inspection will be performed to verify that the as-built divisional flood barriers exist in the UHSRS, ESWPT and PSFSV.	2.a	The as-built divisional flood barriers exist at the appropriate locations in the UHSRS, ESWPT and PSFSV against the internal and external flooding.
2.b	Water-tight doors are provided in the UHSRS, ESWPT and PSFSV to protect against the internal and external flooding.	2.b	An inspection of the as-built water-tight doors will be performed.	2.b	The as-built water-tight doors exist at the appropriate locations in the UHSRS, ESWPT and PSFSV against the internal and external flooding.
3	Penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV, except for watertight doors, are provided appropriately against the internal and external flooding.	3	An inspection of the as-built penetrations will be performed.	3	The as-built penetrations in the divisional walls of the UHSRS, ESWPT and PSFSV are installed at an acceptable level above the floor, and are sealed up to the internal and external flooding levels.
4	For the UHSRS, ESWPT and PSFSV, external wall thickness below flood level is provided to protect against water seepage.	4	An inspection of the as-built external wall thickness for the UHSRS, ESWPT and PSFSV will be performed.	4	For the UHSRS, ESWPT and PSFSV, the as-built external walls below flood level are provided with adequate thickness to protect against water seepage.
5.a	Flood barriers of the UHSRS, ESWPT and PSFSV are installed up to the finished plant grade level to protect against water seepage.	5.a	An inspection of the as-built flood barriers will be performed.	5.a	The as-built flood barriers are installed up to the finished plant grade level for the UHSRS, ESWPT and PSFSV to protect against water seepage.

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

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
5.b	Flood doors and flood barrier penetrations of the UHSRS, ESWPT and PSFSV are provided with flood protection features.	5.b	Inspections of the as-built flood doors and flood penetrations will be performed.	5.b	For the UHSRS, ESWPT and PSFSV, the as-built flood doors and flood barrier penetrations are provided with flood protection features to protect against water seepage.
6	Penetrations in the external walls, including those up to the subgrade level if necessary, of the UHSRS, ESWPT and PSFSV are provided with flood protection features below flood level.	6	An inspection will be performed to verify that the flood protection features of the as-built penetrations in the external walls of the UHSRS, ESWPT and PSFSV exist below flood level.	6	The as-built penetrations in the external walls of the UHSRS, ESWPT and PSFSV are provided with flood protection features below flood level.
7.	Redundant safe shutdown components and associated electrical divisions of 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. The3-hour rated fire barriers are placed as required by the FHA.	7.	An inspection of the as-built fire barriers will be performed.	7.	The 3-hour rated as-built fire barriers are placed as required by the FHA.
8.	All penetrations and openings through the fire barriers of the UHSRS, ESWPT and PSFSV are protected against fire.	8.	An inspection will be performed to verify that the as-built components are provided to protect the penetrations and openings through fire barriers.	8.	All as-built penetrations and openings are protected with rated components (i.e. fire doors in door openings, fire dampers in ventilation duct openings, and penetration seals).
9.	UHSRS, ESWPT and PSFSV are designed based on the structural design-basis loads.	9.	An analysis will be performed to verify that the as-built UHSRS, ESWPT and PSFSV, other than the PCCV, structural design-basis loads are reconciled.	9.	Design reports exist for the as-built UHSRS, ESWPT and PSFSV are designed in accordance with structural design-basis loads.

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.

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 60Hz 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	The offsite circuits are isolated from the onsite 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 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.	MCR alarms and displays for monitoring the switchyard equipment status can be retrieved in the MCR.	7.	Inspection will be performed for the retrievability of the as-built switchyard equipment status in the as-built MCR.	7.	MCR 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 NPP and the TN system operator/owner 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 power unit, the loss of power from the transmission network, 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 power is available from the remaining supplies following, or coincident with the loss of power generated by the nuclear unit, the loss of power from the TN, or the loss of the largest grid load.

Appendix A.5

(Reserved)

Appendix A.6 Interim Radwaste Storage Facility Radiation Protection ad Monitoring

A.6.1 Design Description

The Interim Radwaste Storage Facility (IRSF) is designed for interim storage of Class B and C stabilized wastes (10 CFR 61.55 Waste Classification). The IRSF has no impact on reactor operation, does not interface with the certified design, and is classified as non-safety and non-seismic.

The radiation shielding design of the IRSF (as provided by the building structure) is adequate so that the maximum radiation levels in areas are commensurate with the area's access requirements, and is sufficient to maintain the direct radiation from the on-site storage to site boundary sufficiently low as not to exceed 10 CFR 20.1302 limits.

Area radiation monitoring is provided in the truck bay, and airborne radiation monitoring is provided on the building ventilation exhaust. The IRSF area and airborne radiation monitoring equipment are non-safety related. The purpose and function of IRSF radiation monitoring is to warn of uncontrolled release or movement of radioactive material in the IRSF, and to provide local and remote indication when radiation levels might be of immediate importance to personnel in the area.

The area and airborne radioactivity monitoring system within the IRSF has no interlocks, logic controls, or instrument alarm signals needed to perform safety functions. There is no Class 1E equipment or equipment qualified for a harsh environment within the IRSF.

A.6.2 Inspections, Tests, Analyses, and Acceptance Criteria

Table A.6-1 describes the inspections, test, and analyses, and associated acceptance criteria for the Interim Radwaste Storage Facility.

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

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
1.	The functional arrangement of the area and airborne radiation monitoring system is as described in the Design Description of Subsection A.6.1 and in Table A.6-3.	1.	Inspections of the as-build area radiation and airborne radioactivity monitors will be performed.	1.	The functional arrangement of the area and airborne radiation monitoring system is as described in the Design Description of Subsection A.6.1 and in Table A.6-3.
2.	Shielding walls and ceilings in the IRSF building are provided to maintain the maximum radiation levels specified in Table A.6-2.	2.	Inspections of the as-built shielding wall and ceiling thicknesses will be performed. Refer to FSAR Table 11AA-204.	2.	The as-built shielding walls and ceilings in the IRSF building are consistent with the designed concrete wall thicknesses. Refer to 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 ISRF Radiation Monitoring System Equipment Characteristics

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

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			
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.	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**] [**D.1 corresponds to NUREG-0654 /FEMA-REP-1 evaluation criteria.] **ITAAC element addressed in:** COL EP II.D.1	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.	1.1.1 A report exists that confirms the specific parameters identified in Emergency Plan Appendix 1, Section 5 have been retrieved and displayed in the control room, TSC, and EOF. 1.1.2 A report exists that confirms 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.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
2.0 Notification Methods and Procedures			
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.	2.1 The means exist to notify responsible State and local organizations within 15 minutes after the licensee declares an emergency. [E.1] **ITAAC element addressed in:** COL EP II.E.1	2.1 A test will be performed of the capabilities.	2.1.1 A report exists that confirms communications have 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.
	2.2 The means exist to notify emergency response personnel. [E.2] **ITAAC element addressed in:** COL EP II.E.2	2.2 A test will be performed of the capabilities.	2.2 A report exists that confirms notification to the NAPS Unit 3 emergency response organization has been performed.
	2.3 The means exist to notify and provide instructions to the populace within the plume exposure EPZ. [E.6] **ITAAC element addressed in:** COL EP II.E.6	2.3 The full test of notification capabilities will be conducted.	2.3 A test report exists that confirms notification and clear instructions to the public are successfully accomplished in accordance with the emergency plan requirements.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Communications			
10 CFR 50.47(b)(6) – Provisions exist for prompt communications among principal response organizations to emergency personnel and to the public.	3.1 The means exist for communications among 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 this EP Program Element in the following Design Commitments (DC): • Table 2.7.6.10-1, DC #2 • Table 2.9-1, DC #7I	3.1 NOTE: For communications among 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: • Table 2.7.6.10-1, Item #2 • Table 2.9-1, Item #7I	3.1 NOTE: For communications among 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: • Table 2.7.6.10-1, Item #2 • Table 2.9-1, Item #7I

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
3.0 Emergency Communications (continued)			
	3.2 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 this EP Program Element in the following Design Commitments (DC): • Table 2.7.6.10-1, DC #3 • Table 2.10-1, DC #4	3.2 NOTE: For communications among the control room, TSC, EOF, principal State and local emergency operations centers, and radiological field assessment teams, Tier 2 of the US-APWR Design Control Document (DCD) addresses the following Inspections, Tests, Analyses: • Table 2.7.6.10-1, DC #3 • Table 2.10-1, DC #4	3.2 NOTE: For communications among 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: • Table 2.7.6.10-1, DC #3 • Table 2.10-1, DC #4

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
4.0 Public Education and Information			
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.	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] **ITAAC element addressed in:** COL EP II.G.3.b	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.	4.1 A report exists that confirms the Emergency News Center has space for a limited number of the news media.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment			
10 CFR 50.47(b)(8) – Adequate emergency facilities and equipment to support the emergency response are provided and maintained.	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): • Table 2.5.4-2, DC #1 • Table 2.7.6.10-1, DC #4 • Table 2.9-1, DC #7k • Table 2.10-1, DCs #1, 2, 3	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: • Table 2.5.4-2, DC #1 • Table 2.7.6.10-1, DC #4 • Table 2.9-1, DC #7k • Table 2.10-1, DCs #1,2,3 5.1.2 An inspection of the as-build OSC will be performed.	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: • Table 2.5.4-2, DC #1 • Table 2.7.6.10-1, DC #4 • Table 2.9-1, DC #7k • Table 2.10-1, DCs #1,2,3
			5.1.2 A report exists that confirms the OSC is in a location separate from the control room and TSC.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
5.0 Emergency Facilities and Equipment (continued)			
			5.1.3 A report exists that confirms the following communications equipment have been provided in the OSC and voice transmission and reception have been accomplished: • 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)			
	5.2 The licensee has established an emergency operations facility (EOF). [H.2] **ITAAC element addressed in:** COL EP II.H.2	5.2 An inspection of the EOF will be performed.	5.2.1 A report exists that confirms the EOF has at least 243 square meters (2,625 square feet). 5.2.2 A report exists that confirms voice transmission and reception have been accomplished between the EOF and TSC. 5.2.3 NOTE: For the EOF, Tier 1 of the US-APWR Design Control Document (DCD) addresses this EP Program Element in the following Acceptance Criteria: • Table 2.5.4-2, DC #1 • Table 2.7.6.10-1, DCs #2,3 • Table 2.9-1, DC #7l • Table 2.10-1, DC #4

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment			
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.	6.1 The means exist to provide initial and continuing radiological assessment throughout the course of an accident. [I.2] **ITAAC element addressed in:** COL EP II.I.2, Appendix 2	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.	6.1 A report exists that confirms 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: A. Accident Assessment and Classification 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)			
			B. Radiological Assessment and Control 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)			
	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] **ITAAC element addressed in:** COL EP II.I.3, Appendix 2	6.2 An analysis of emergency plan implementing procedures will be performed.	6.2.1 A report exists that confirms a methodology has been established to determine source term of releases of radioactive materials within plant systems.
	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] **ITAAC element addressed in:** COL EP II.I.4, Appendix 2	6.3 An analysis of emergency plan implementing procedures will be performed.	6.3 A report exists that confirms a methodology has been provided to establish the relationship between effluent monitor readings and onsite and offsite exposures and contamination for various meteorological conditions.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	6.4 The means exist to acquire and evaluate meteorological information. [I.5] **ITAAC element addressed in:** COL EP II.I.5	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: • Wind speed (at 10 m and 48.4 m) • Wind direction (at 10 m and 48.4 m) • Ambient air temperature (at 10 m and 48.4 m)	6.4 A report exists that confirms the specified meteorological data was available at the control room, TSC, and EOF.
	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] **ITAAC element addressed in:** COL EP II.I.8	6.5 An analysis of emergency plan implementing procedures will be performed.	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.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
6.0 Accident Assessment (continued)			
	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] **ITAAC element addressed in:** COL EP II.I.9	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.	6.6 A report exists that confirms instrumentation used for monitoring I-131 to detect airborne concentrations as low as 1E-07 microcuries per cubic centimeter has been provided.
	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] **ITAAC element addressed in:** COL EP II.I.10, Appendix 2	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.	6.7 A report exists that confirms the means for relating contamination levels and airborne radioactivity levels to dose rates and gross radioactivity measurements for the specified isotopes has been established.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
7.0 Protective Response			
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.	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] 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. **ITAAC element addressed in:** COL EP II.J.1	7.1 A test of the onsite warning and communications capability will be performed during a drill or exercise.	7.1.1 A report exists that confirms that, 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. 7.1.2 A report exists that confirms that, during a drill or exercise, audible warnings were provided to individuals outside the Protected Area, but within the Owner Controlled Area.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills			
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.	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] **ITAAC element addressed in:** COL EP II.N.1	8.1 A full-participation exercise (test) will be conducted within the specified time periods of Appendix E to 10 CFR Part 50.	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.

(continued)

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) A. Accident Assessment and Classification 1. Demonstrate the ability to identify initiating conditions, determine emergency action level (EAL) parameters, and correctly classify the emergency throughout the exercise. Standard Criteria: 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. *(continued)*

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) B. Notifications 1. Demonstrate the ability to alert, notify, and mobilize site emergency response personnel. Standard Criteria: a. Initiate activation of the emergency recall system following initial event classification for an Alert or higher. *(continued)*

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) 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. 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. *(continued)*

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) 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. *(continued)*

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) 3. Demonstrate the ability to warn or advise onsite individuals of emergency conditions. Standard Criteria: a. Initiate notification of onsite individuals (via plant page or telephone), using the designated EPIP within 15 minutes of notification. 4. Demonstrate the capability of the Alert and Notification System (ANS) sirens to operate properly when required. Standard Criteria: a. 90% of the sirens operate properly. *(continued)*

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) C. Emergency Response 1. Demonstrate the capability to direct and control emergency operations. Standard Criteria: a. Command and control is demonstrated by the control room in the early phase of the emergency and the technical support center (TSC). *(continued)*

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) 2. Demonstrate the ability to transfer emergency direction from the control room (simulator) to the TSC. Standard Criteria: a. Briefings were conducted prior to turnover responsibility. Personnel document transfer of duties. 3. Demonstrate the ability to prepare for around-the-clock staffing requirements. Standard Criteria: a. Complete 24-hour staff assignments. *(continued)*

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) 4. Demonstrate the ability to perform assembly and accountability for all onsite individuals during an emergency requiring protected area assembly and accountability. Standard Criteria: a. Protected area personnel assembly and accountability completed within 30 minutes following initiation of assembly and accountability measures. *(continued)*

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) D. Emergency Response Facilities 1. Demonstrate activation of the operational support center (OSC), and full functional operation of the TSC and emergency operations facility (EOF). Standard Criteria: a. The TSC, OSC, and EOF are activated within about 60 minutes of the initial notification. *(continued)*

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) 2. Demonstrate the adequacy of equipment, security provisions, and habitability precautions for the TSC, OSC, EOF, and joint information center (JIC), as appropriate. Standard Criteria: a. Demonstrate the adequacy of the emergency equipment in the emergency response facilities. b. The *Security Team Leader* implements and follows applicable EPIPs. *(continued)*

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) c. The Health Physics (HP) personnel implement the designated EPIP provisions if an onsite or offsite release has occurred. 3. Demonstrate the adequacy of communications for all emergency support resources. Standard Criteria: a. Emergency response facility personnel are able to operate all specified communication systems. *(continued)*

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) b. Clear primary or backup communications links are established and maintained for the duration of the exercise. E. Radiological Assessment and Control 1. Demonstrate the ability to obtain onsite radiological surveys and samples. Standard Criteria: a. HP personnel demonstrate the ability to obtain appropriate instruments (range and type) and take surveys. *(continued)*

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) b. Airborne samples are taken when the conditions indicate the need for the information. 2. Demonstrate the ability to continuously monitor and control radiation exposure to emergency workers. Standard Criteria: 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). *(continued)*

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) b. Exposure records are available. c. Emergency workers include Security and personnel within all emergency facilities. 3. Demonstrate the ability to assemble and deploy field monitoring teams. Standard Criteria: 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. *(continued)*

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) 4. Demonstrate the ability to satisfactorily collect and disseminate field team data. Standard Criteria: 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. b. Satisfactory data dissemination is from the field team to HP (*Plume Tracking/Dose Assessment*) personnel. *(continued)*

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) 5. Demonstrate the ability to develop dose projections. Standard Criteria: a. Timely and accurate dose projections are performed in accordance with EPIPs. 6. Demonstrate the ability to make the decision whether to issue radioprotective drugs to emergency workers. Standard Criteria: a. Radioprotective drugs are taken (simulated) if the estimated dose to the thyroid will exceed 25 rem committed dose equivalent (CDE). *(continued)*

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) 7. Demonstrate the ability to develop appropriate protective action recommendation(s) (PAR(s)) and notify appropriate authorities within 15 minutes of development. Standard Criteria: a. Total effective dose equivalent (TEDE) and CDE dose projections from the dose assessment computer code are compared to criteria in EPIPs. b. PAR(s) is (are) developed within 15 minutes of data availability, as appropriate. *(continued)*

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) c. PAR(s) is (are) transmitted to responsible State and local government agencies within 15 minutes of development. F. Public Information 1. Demonstrate the capability to develop and disseminate clear, accurate, and timely information to the news media. Standard Criteria: a. Media information (e.g., press releases, press briefings, electronic media) is made available following notification of Dominion External Affairs personnel. *(continued)*

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) 2. Demonstrate the capability to establish and effectively operate rumor control in a coordinated fashion. Standard Criteria: a. Calls are answered in a timely manner with the correct information. b. Rumors are identified and addressed. *(continued)*

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) G. Evaluation 1. Demonstrate the ability to conduct a post-exercise critique, to determine areas requiring improvement and corrective action. Standard Criteria: a. An exercise time-line is developed, followed by an evaluation of the objectives. b. Significant problems in achieving the objectives are discussed to ensure understanding of why objectives were not fully achieved. c. Recommendations for improvement in non-objective areas are discussed.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
8.0 Exercises and Drills (continued)			
			8.1.2 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.
			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.

Table B-1 ITAAC For Emergency Planning

Planning Standard	EP Program Elements	Inspections, Tests, Analyses	Acceptance Criteria
9.0 Implementation Procedures			
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.	9.1 The licensee has submitted detailed implementing procedures for its emergency plan no less than 180 days prior to fuel load.	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.	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.

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 site-specific physical security hardware.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
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 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 must be secured and be capable of being 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 must be protected by a physical barrier and monitored by intrusion detection equipment.	2.c	Inspections will be performed of unattended openings of passable size within the protected area barriers.	2.c	Unattended openings of a passable, (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
3.a	Isolation zones exist in outdoor areas adjacent to the physical barrier at the perimeter of the protected area that allow sufficient size for observation and assessment on either side of the barrier.	3.a	Inspections of the isolation zones outdoor areas adjacent to the physical 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 allow 20 feet for observation and assessment of the activities of people on either side of the barrier.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
3.b	Where permanent buildings do not allow a sufficient distance for observation on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier, and the (license applicant specified) observation distance does not apply.	3.b	Inspections of the part of the building that constitutes the protected area will be performed.	3.b	Where permanent buildings do not allow a 20 feet distance on the inside of the protected area, the building walls are immediately adjacent to, or an integral part of, the protected area barrier and the 20 feet observation distance does not apply.
4.a	Intrusion detection system (IDS) can detect penetration or attempted penetration of the protected area perimeter 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 and subsequent alarms annunciate concurrently in at least two continuously manned onsite alarms stations, (central and secondary alarm stations).
4.b	Video image recording equipment with real-time and play-back capability provides the ability to assess detected assessment activities before and after each alarm annunciation within the isolation zone.	4.b	Tests, inspections or a combination of tests and inspections of the video assessment equipment will be performed.	4.b	Video image recording equipment with real-time and play-back capability provide the ability to display activities before and after each alarm annunciation within the isolation zone.
4.c	Intrusion detection and assessment equipment at the protected area perimeter remains operable 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 operable from an uninterruptible power supply in the event of the loss of normal power.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

	Design Commitment		Inspections, Tests, Analyses		Acceptance Criteria
5.	Isolation zones and exterior areas within the protected area are provided with illumination to permit observation of abnormal presence or activity of persons or vehicles.	5.	Inspections of the Illumination in isolation zones and exterior areas of 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 observation.
6.b	The external walls, doors, ceiling and floors in the secondary alarm station and the last access control function for access to the protected area are bullet resistant.	6.b	Type test, analysis or a combination of type test and analysis of the external walls, doors, ceiling 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 UL752 (2006) Level 4.
7.	The vehicle barrier system is installed and located at the necessary stand-off distance to protect against the DBT vehicle bombs.	7.	Inspections will be performed for the vehicle barrier system.	7.	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.
8.b	Access control points are established to detect firearms, explosives, and incendiary devices at the protected area personnel access points.	8.b	Tests, inspections, or combination of tests and inspections of installed systems and equipment will be performed.	8.b	The detection equipment at the protected area personnel access points is capable of detecting firearms, explosives, and incendiary devices.
9.	A security access control system with numbered picture badges is installed for use by individuals who are authorized access to protected areas without escort.	9.	Tests of the access control system with numbered picture badges will be performed.	9.	The access authorization system utilizes numbered picture badges, and authorizes protected area access only to those personnel with unescorted access authorization.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
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-2	Security alarm annunciation and video assessment information are available concurrently in the secondary alarm station.	11.a-2 Tests, inspections or a combination of tests and inspections of alarm annunciation and video assessment equipment will be performed.	11.a-2 Security alarm annunciation and video assessment equipment information is available concurrently in the secondary alarm station.
11.b-2	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-2 Inspections of the secondary alarm station locations will be performed.	11.b-2 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	Central and secondary alarm stations are designed and equipped such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (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.c Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	11.c Central and secondary alarm stations are designed, equipped and constructed such that, in the event of a single act, in accordance with the design basis threat of radiological sabotage, the design enables the survivability of equipment needed to maintain the functional capability of either alarm station to: (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.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

	Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
11.d	Both the central and secondary alarm stations are constructed, protected, and equipped to the standards for the central alarm station (stations need not be identical in design).	Tests, inspections or a combination of tests and inspections of the central and secondary alarm stations will be performed.	The central alarm station and secondary alarm station are constructed, protected, and equipped to the same standards for functional redundancy (stations need not be identical in design).
12.a	Secondary security power supply system for alarm annunciator equipment and non-portable communications equipment is located within a vital area.	Inspections of the secondary security power supply system will be performed.	The secondary security power system for alarm annunciator equipment and non-portable communications equipment is located within a vital area.
13.b-2	Intrusion detection and assessment systems are designed to provide visual display and audible annunciation in the secondary alarm station.	Tests will be performed on Intrusion detection and assessment systems.	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 and secured by locking devices that allow prompt egress during an emergency.	Tests, inspections or a combination of tests and inspections of emergency exits through the protected area perimeter will be performed.	Emergency exits through the protected area perimeter are alarmed and secured by locking devices that allow prompt egress during an emergency.
16.a-2	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.	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	The secondary alarm station is equipped with conventional (land line) telephone service with local law enforcement authorities and has a system for continuous communication with the main control room.

Table C-1 Physical Security Hardware Inspections, Tests, Analyses, and Acceptance Criteria

Design Commitment	Inspections, Tests, Analyses	Acceptance Criteria
16.b-2 The secondary alarm station is capable of continuous communication with security personnel.	16.b-2 Tests, inspections, or a combination of tests and inspections of the secondary alarm station continuous communication capabilities will be performed.	16.b-2 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 event.