

**Southern Nuclear Operating Company, Inc.
Joseph M. Farley Nuclear Plant
Docket 50-348 and 50-364**

**Transition to 10 CFR 50.48(c) - NFPA 805
Performance-Based Standard for Fire Protection for
Light Water Reactor Electric Generating Plants, 2001
Edition**



Transition Report

September, 2012

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-041-SEP-005	
VFDR	N1B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 1C DISTRIBUTION PANEL - N1B31L0001C - Pressurizer Heater Group 1C Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to heater and of N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-006	
VFDR	N1B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 1D DISTRIBUTION PANEL - N1B31L0001D - Pressurizer Heater Group 1D Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to heater and of N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-007	
VFDR	N1B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 1E DISTRIBUTION PANEL - N1B31L0001E - Pressurizer Heater Group 1E Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to heater and of N1R41L0001H can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-008	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N1C55NI0031B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-041-SEP-009	
VFDR	N1C55NI0032B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-041-SEP-010	
VFDR	Q1B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 1A DISTRIBUTION PANEL - Q1B31L0001A - Pressurizer Heater Group 1A Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to heater and of N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-011	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 1B DISTRIBUTION PANEL - Q1B31L0001B - Pressurizer Heater Group 1B Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced damage of N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-012	
VFDR	Q1B41P0001A:ON/OFF, RCP 1A - Q1B41P0001A - RCP 1A. The pump is normally running required off. Fire induced cable damage can prevent ability to trip pump, and a challenge to Reactor Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-013	
VFDR	Q1B41P0001B:ON/OFF, RCP 1B - Q1B41P0001B - RCP 1B. The pump is normally running required off. Fire induced cable damage can prevent ability to trip pump, and a challenge to Reactor Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-014	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1B41P0001C:ON:OFF, RCP 1C - Q1B41P0001B - RCP 1B. The pump is normally running required off. Fire induced cable damage can prevent ability to trip pump, and a challenge to Reactor Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-015	
VFDR	Q1E11P0001A:OFF:ON/OFF, 1A RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage due to cascading power supply to instruments cabinets generate a SIAS signal to spuriously start pump after battery depletion or after battery fails due to environmental concerns, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-016	
VFDR	Q1E11P0001B:OFF:ON/OFF, 1B RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage due to cascading power supply to instruments cabinets generate a SIAS signal to spuriously start pump after battery depletion or after battery fails due to environmental concerns, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-020	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21P0002A:STANDBY:ON/OFF, 1A CHARGING/HHSI PUMP - Q1E21P0002A - 1A Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-021	
VFDR	Q1E21P0002B:STANDBY:ON/OFF-TRAIN A, 1B CHARGING/HHSI PUMP - Q1E21P0002B - 1B Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-022	
VFDR	Q1E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage due to cascading power supply to instruments cabinets (SIAS) after battery depletion or after battery fails due to environmental concerns may cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-023	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0016B:CLOSED:CLOSED-TRAINB, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016B - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage due to cascading power supply to instruments cabinets (SIAS) after battery depletion or after battery fails due to environmental concerns may cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-024	
VFDR	Q1E21V0257:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage and cascading power supply to instruments cabinets (SIAS) may spuriously operate valve after battery depletion or after battery fails due to environmental concerns preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-025	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q1E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. Fire induced damage of cascading power supply to instruments cabinets may prevent valve positioning after battery depletion or after battery fails due to environmental concerns along with availability of instrument air, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-026	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage may spuriously close valve or spurious SIAS may occur after battery is depleted or fails and close valve to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-027	
VFDR	Q1E21V0376B:OPEN:CLOSED, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage may spuriously close valve or spurious SIAS may occur after battery is depleted or fails and close valve to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-028	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage, instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-041-SEP-029	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage, instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-041-SEP-030	
VFDR	Q1N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q1N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-031	
VFDR	Q1N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q1N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-032	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q1N23P0002 - TDAFW Pump; Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-033	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q1N23P0002 - TDAFW Pump; Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-034	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-035	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-036	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-037	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-038	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R21L0001A:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1A - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-041-SEP-039	
VFDR	Q1R21L0001B:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-041-SEP-040	
VFDR	Q1R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1B - Q1E21P0002A - 1A Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-041-SEP-041	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E21P0002A - 1A Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
0335-U2	335 Load Center Room, Train A
0343-U2	343 Load Center Room, Train A
0346-U2	346 Switchgear and M-G Set Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-041-U2 - Train A Switchgear & Load Center Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of carbon dioxide suppression systems will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation	
Revision	1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-37	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-37	Risk Criteria	Required to meet risk criteria.
Detection	1A-37	DID Criteria	Required to meet DID criteria.
Detection	1A-38	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-38	Risk Criteria	Required to meet risk criteria.
Detection	1A-38	DID Criteria	Required to meet DID criteria.
Detection	1A-39	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-39	Risk Criteria	Required to meet risk criteria.
Detection	1A-39	DID Criteria	Required to meet DID criteria.
Detection	1A-40	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-40	Risk Criteria	Required to meet risk criteria.
Detection	1A-40	DID Criteria	Required to meet DID criteria.
Detection	1A-41	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-41	Risk Criteria	Required to meet risk criteria.
Detection	1A-41	DID Criteria	Required to meet DID criteria.
Detection	1A-42	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-42	Risk Criteria	Required to meet risk criteria.
Detection	1A-42	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1A-37	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	1A-37	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1A-37	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1A-38	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	1A-38	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1A-38	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1A-40	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	1A-40	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1A-40	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1A-41	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	1A-41	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1A-41	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1A-42	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	1A-42	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1A-42	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-041-U2 - Train A Switchgear & Load Center Rooms		Required Fire Protection Systems and Features
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-041-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with fire rated cables, specified recovery actions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-041-BC-001	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Decay Heat Removal via SG 2A is desired in this fire area. In order to remove Core Decay Heat, RCS Loop Temperature Indication must remain available for operators at the control room. Fire A loss of power to the RCS Loop 1 Hot and Cold Leg Temperature indicators TR0413 or TR0410 (Hot Leg and Cold Leg respectively) could render Loop 1 Temperature Indication unavailable. AC panels 2A and 2J (both can be supplied from Battery 2A) provide the necessary power for TR0413. AC panels 2B and 2J supply power for the TE0410 loop (Both supplied from Battery 2A). This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-041-BC-002	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. A loss of control power to DC Panel 2B could result in a failure to train Pressurizer Heater Group 2A. Failure to secure the Pressurizer Heater 2A could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-003	
VFDR	Q2B31PT0455:AVAILABLE:AVAILABLE, PRESSURIZER PRESS PROT CHANNEL 1 PRESS TRANSMITTER - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT455 could initiate a spurious SIAS signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-004	
VFDR	Q2C22LT0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A LEVEL TRANSMITTER - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of power to LT474 could initiate a SG 2A Hi-Hi or Lo-Lo water level signal. This signal could potentially start the MDAFW Pumps at the inopportune time before the Auxiliary Feed water Lineup is established. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-005	
VFDR	Q2C22LT0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B LEVEL TRANSMITTER - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of power to LT484 could initiate a SG 2B Hi-Hi or Lo-Lo water level signal. This signal could potentially start the MDAFW Pumps at the inopportune time before the Auxiliary Feed water Lineup is established. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-006	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2C22LT0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C LEVEL TRANSMITTER - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of power to LT494 could initiate a SG 2C Hi-Hi or Lo-Lo water level signal. This signal could potentially start the MDAFW Pumps at the inopportune time before the Auxiliary Feed water Lineup is established. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-008	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2A suffers a loss of control power from panel 2B that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-009	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of power to DC panel 2A, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-041-BC-010	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. AC power is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of power could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-011	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of power to the Steam Generator Level Transmitters (LT474, LT475-SG2A) (LT484, LT485-SG2B) or (LT494, LT495-SG2C) could initiate a spurious TDAFW Pump start signal. This signal could open the steam admission valves to the TDAFW Pump and cause the pump to spuriously steam the Generators. This failure could result in an overcooling condition and challenge the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-BC-012	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Source Range Instrumentation is required to monitor Reactivity Conditions. A loss of channel 1 and channel 2 Source Range Detectors could occur, due to a loss of power from AC panels 2A and 2B. This would prevent operator ability to monitor source range count levels. Failure to monitor subcritical conditions challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-041-BC-013	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2A supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat. Decay Heat Removal via SG2A is desired in this fire area. A loss of power/and or instrument air will cause valve ARV PV3371A to fail closed. Instrument air fails due to a loss of power to load centers 2A and 2G to the compressors. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-1-041-HVAC-002	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, Battery 2A, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-041-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-IA-003	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-SEP-001	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - Pressurizer Group E is not credited for use, and spurious operation of the heater may result in an RCS over pressurization condition. A loss of power to DC Panel 1H due to circuit failure and the panel being physically located in the area, could prevent remote tripping of the load. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-041-SEP-002	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Fire induced control circuit damage to sequencer 2F could spuriously start charging pump 2A. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
0319-U1	319 Corridor - Train B
0339-U1	339 Corridor - Train A
0345-U1	345 Hallway - Train A

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-042-U1 - Aux Building Hallways & Corridor Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by performance-based approach isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the performance-based approach Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 1C. Main feed is performance-based approach isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Performance-based approach electrical power is supplied by diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by performance-based approach Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


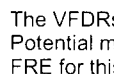
Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		Required Fire Protection Systems and Features	
Compliance Basis:			
1-042-U1 - Aux Building Hallways & Corridor		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-59	DID Criteria	Required to meet DID criteria.
Detection	1A-59	Separation	Required to support the use of MI cable.
Detection	1A-59 [1]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-59 [1]	DID Criteria	Required to meet DID criteria.
Water Suppression	1A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	1A-59	Separation	Suppression is required to support the use of MI cable.
Water Suppression	1A-59 [345]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	1A-59 [345]	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Separation	Required to support the NSCA.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point and replace trip device in panel Q1R42B0001A, breaker LA13.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-042-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s), enhanced transient restrictions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-042-IA-001	
VFDR	Q1B31V0061:OPEN/CLOSED:OPEN/CLOSED, PRESSURIZER PORV - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1B31V0061 - Pressurizer PORV. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-001	
VFDR	N1B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-002	
VFDR	N1B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-042-SEP-003	
VFDR	N1B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-004	
VFDR	N1B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-042-SEP-005	
VFDR	N1B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 1C DISTRIBUTION PANEL - N1B31L0001C - Pressurizer Heater Group 1C Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-042-SEP-006	
VFDR	N1B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 1D DISTRIBUTION PANEL - N1B31L0001D - Pressurizer Heater Group 1D Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-007	
VFDR	N1B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 1E DISTRIBUTION PANEL - N1B31L0001E - Pressurizer Heater Group 1E Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to N1R41L0001H can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-008	
VFDR	N1B31LI0460:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-460 (PROTECTION CHANNEL II) - N1B31LI0460- Pressurizer Level Indicator LI-460. The indicator is normally available, required available at least one indicator from pressurizer level is required to provide process monitoring of RCS level. Fire induced damage due to cascading power failures result in failure to monitor the RCS level, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-009	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N1C55NI0031B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-010	
VFDR	N1C55NI0032B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-011	
VFDR	N1N11PI0485:AVAILABLE:AVAILABLE, STEAM PRESSURE LOOP 2 INDICATOR PROTECTION CHANNEL III - N1N11PI0485 - Steam Pressure Loop 2 Indicator Protection Channel III. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-012	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N1N11PI0486:AVAILABLE:AVAILABLE, STEAM PRESSURE LOOP 2 INDICATOR PROTECTION CHANNEL IV - N1N11PI0486 - Steam Pressure Loop 2 Indicator Protection Channel IV. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-013	
VFDR	N1N11PI0495:AVAILABLE:AVAILABLE, STEAM PRESSURE LOOP 3 INDICATOR PROTECTION CHANNEL III - N1N11PI0495 - Steam Pressure Loop 3. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-014	
VFDR	N1N11PI0496:AVAILABLE:AVAILABLE, STEAM PRESSURE LOOP 3 INDICATOR PROTECTION CHANNEL IV - N1N11PI0496 - Steam Pressure Loop 3. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-015	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N1N21P0001A:ON/STANDBY:OFF, CONDENSATE PUMP 1A - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-016	
VFDR	N1N21P0001B:ON/STANDBY:OFF, CONDENSATE PUMP 1B - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-017	
VFDR	N1N21P0001C:ON/STANDBY:OFF, CONDENSATE PUMP 1C - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 1A DISTRIBUTION PANEL - Q1B31L0001B - Pressurizer Heater Group 1A Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage and to N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-019	
VFDR	Q1B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 1B DISTRIBUTION PANEL - Q1B31L0001D - Pressurizer Heater Group 1B Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage to N1R41L0001G can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-020	
VFDR	Q1B41P0001A:ON/OFF, RCP 1A - Q1B41P0001A - RCP 1A. The pump is normally on, required off to prevent RCS inventory losses and meet thermo hydraulic concerns. Fire induced damage due to cascading power failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-021	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1B41P0001B:ON:OFF, RCP 1B - Q1B41P0001B - RCP 1B. The pump is normally on, required off to prevent RCS inventory losses and meet thermo hydraulic concerns. Fire induced cable damage and cascading power failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-022	
VFDR	Q1B41P0001C:ON:OFF, RCP 1C - Q1B41P0001C - RCP 1C. The pump is normally on, required off to prevent RCS inventory losses and meet thermo hydraulic concerns. Fire induced damage due to cascading power failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-023	
VFDR	Q1E11P0001A:OFF:ON/OFF, 1A RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-024	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E11P0001B:OFF:ON/OFF, 1B RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-030	
VFDR	Q1E21P0002B:STANDBY:ON/OFF-TRAIN A, 1B CHARGING/HHSI PUMP - Q1E21P0002B - 1B Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-031	
VFDR	Q1E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage may generate a SIAS to cause a failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-032	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0016B:CLOSED:CLOSED-TRAINB, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016B - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage may generate a SIAS to cause a failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-033	
VFDR	Q1E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage may generate a SIAS to preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-034	
VFDR	Q1E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0258 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage may generate a SIAS to preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-035	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q1E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. Fire induced cable damage, cascading power supply to instruments cabinets, and instrument air failures may prevent valve positioning, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-036	
VFDR	Q1E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage or spurious SIAS may spuriously close valve to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-037	
VFDR	Q1E21V0376B:OPEN:CLOSED, VCT OUTLET ISOLATION - Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required closed to prevent a boron dilution event or damage to the charging pumps. Fire induced cable damage can cause spurious valve operation allow RMWT to dilute the RCS boron concentration or gas binding of the charging pumps, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-038	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage or spurious SIAS may spuriously close valve to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-039	
VFDR	Q1N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q1N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage may spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-040	
VFDR	Q1N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage may spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-041	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage, instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-042	
VFDR	Q1N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q1N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage may spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-043	
VFDR	Q1N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q1N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage, instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-044	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N11V0002A:OPEN:CLOSED, 1A SG MSIV - Q1N11V0002A - 1A SG MSIV. The valve is normally open, required closed to control steam generator pressure. Fire induced cable damage may fail open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-045	
VFDR	Q1N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q1N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage generates a spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-046	
VFDR	Q1N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q1N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage generates a spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-047	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N21V0001A:OPEN:CLOSED, A STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232A - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-048	
VFDR	Q1N21V0001B:OPEN:CLOSED, B STEAM GENERATOR MAIN FEED STOP CKECK VALVE MOV3232B - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-049	
VFDR	Q1N21V0001C:OPEN:CLOSED, C STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232C - N1N21P0001A - Condensate Pump 1A; N1N21P0001B - Condensate Pump 1B; N1N21P0001C - Condensate Pump 1C; Q1N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q1N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q1N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-042-SEP-050	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage to instrument air components, cascading power failures and spurious automatic actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-051	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage to instrument air components, cascading power failures and spurious automatic actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-052	
VFDR	Q1N23HV3228C:OPEN:OPEN, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-053	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-054	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-055	
VFDR	Q1P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SOLENOID VALVE - Q1P15SV3103 - Pressurizer Liquid Solenoid Valve and Q1P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-056	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SOLENOID VALVE - Q1P15SV3104 - Pressurizer Steam Solenoid Valve and Q1P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-057	
VFDR	Q1P15SV3331:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION VALVE - Q1P15SV3104 - Pressurizer Steam Solenoid Valve and Q1P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-058	
VFDR	Q1P15SV3332:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION VALVE - Q1P15SV3103 - Pressurizer Liquid Solenoid Valve and Q1P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-059	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1P15SV3333:CLOSED:OPEN/CLOSED, REACTOR COOLANT HOT LEG SAMPLE ISOLATION SOLENOID - Q1P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q1P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-060	
VFDR	Q1P15SV3765:CLOSED:OPEN/CLOSED, REACTOR COOLANT HOT LEG SOLENOID VALVE - Q1P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q1P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-061	
VFDR	Q1P16V0522:CLOSED:CLOSED, SW TO D/G 1B - Q1P16V0522 - SW to D/G 1B. The valve is normally closed, required closed to prevent crosstie of service water system. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-062	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1P16V0523:OPEN:OPEN, SW TO D/G 1B - Q1P16V0523 - SW to D/G 1B. The valve is normally open, required open to align service water system to diesel generator. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-063	
VFDR	Q1P16V0531:OPEN:OPEN, SW FROM D/G 1B - Q1P16V0531 - SW from D/G 1B. The valve is normally open, required open to align service water system to diesel generator. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-064	
VFDR	Q1R11B0005:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 1E - Q1R16B0007 - 600V Load Center 1E. The switchgear is normally energized required energized. Fire induced cable damage can prevent power to DGB HVAC and components required for diesel generator to place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-065	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R15A0007:ENERGIZED:ENERGIZED-EDG1B, 4160V SWITCHGEAR BUS 1G - Q1R15A0007 - 4160V Switchgear Bus 1G. The switchgear is normally energized required energized. Fire induced cable damage to load power cable concurrent with fault on breaker control circuit can prevent EDG to provide power to bus may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-066	
VFDR	Q1R15A0506:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 1L - Q1R15A0506 - 4160V Switchgear Bus 1L. The bus is normally energized required energized. Fire induced cable damage can prevent power from bus and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-067	
VFDR	Q1R21L0001A:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1A - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-068	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R21L0001B:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel.1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-069	
VFDR	Q1R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1B - Q1E21P0002B - 1B Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-070	
VFDR	Q1R41L0001D:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1D - Q1R41L0001D - 125V dc Distribution Panel. The panel is normally energized, required energized to support electrical equipment operation. Fire induced cable damage may disable electrical support, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-071	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R42E0001B:ENERGIZED:ENERGIZED, BATTERY CHARGER 1B - Q1R42E0001B - Battery Charger 1B. The charger is normally energized, required energized to support electrical distribution system. Fire induced cable may disable electrical support, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-072	
VFDR	Q1R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 1B - Q1R42B0002B - 125V Battery 1B. The battery is normally available required available. Fire induced cable damage can disable the dc power required for diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-073	
VFDR	Q1R43A0502:STANDBY:ENERGIZING U1, 1B DIESEL GENERATOR - Q1R43A0502- 1B Diesel Generator. The diesel is normally in standby required running. Fire induced cable damage can prevent power from diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-074	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E21P0002B - 1B Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F; Q1R41L0001B - 125Vdc Distribution Panel 1B. The pump is normally in Standby, required off; sequencer is normally available, required available and power supply normally energized, required energized, all required to turn off pump to prevent overcharging. Fire induced damage cable of sequencer and cascading loss of power to Q1R41L0001B prevent the ability to turn pump off, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-075	
VFDR	Q1R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1G - Q1R43E0001B - Sequencer Bus 1G. The sequencer is normally available required available. Fire induced cable damage can disable the sequencer required for diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-042-SEP-076	
VFDR	Q1V47MOV3643:OPEN:OPEN, BATTERY ROOM EXHAUST FAN DAMPER - Q1V47MOV3643 - Battery Room Exhaust Fan. The fan is normally on, required on to support CCW control power to Q1R41L0001E. Fire induced cable may disable electrical support, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-042-SEP-077	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	QSV49K0001B:STANDBY:ON, CONTROL ROOM PACKAGE A/C BLOWER UNIT B - QSV49K0001B - Control Room A/C Blower Unit B. The blower is normally in standby, required on to provide control room HVAC. Fire induced cable damage can disable blower, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
0319-U2	319 Corridor - Train B
0339-U2	339 Corridor - Train A
0345-U2	345 Hallway - Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-042-U2 - Aux Building Hallways & Corridor Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C


Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	Required Fire Protection Systems and Features	
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-59	DID Criteria	Required to meet DID criteria.
Detection	1A-59 [1]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	1A-59 [1]	DID Criteria	Required to meet DID criteria.
Detection	1A-59 [1]	Separation	Required to support the use of MI cable.
Water Suppression	1A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	1A-59	Separation	Suppression is required to support the use of MI cable.
Water Suppression	1A-59 [345]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	1A-59 [345]	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Separation	Required to support the NSCA.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-042-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with fire rated cable, specified recovery actions and the installed detection/suppression system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained."	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-042-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A (Train A Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-1-042-HVAC-002	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2F - This component, Switchgear 2F (600V Load Center D Cooler), requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component could challenge various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-042-HVAC-003	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2G - This component, Switchgear 2G (600V Load Center E Room Cooler), requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-042-HVAC-004	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2A - This component, MCC 2A , requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-042-HVAC-005	
VFDR	N2R11A0501:ENERGIZED:ENERGIZED, 2A START-UP TRANSFORMER - This component, 2A Start-up Transformer, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component could challenge the electrical support vital auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-042-SEP-001	
VFDR	Q1P16V0522:CLOSED:CLOSED, SW TO D/G 1B - In order to establish the Service Water Supply, the line associated with the Unit 2 DG Cross Tie must be isolated. Fire induced circuit failure could spuriously open valve Q1P16V0522 and lead to a diversion path for service water. This failure challenges all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-042-SEP-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1F - Fire induced circuit failure to the sequencer circuit could impact power availability if offsite power is not available. Without proper sequencer operation, the Diesel Generator will not be able to satisfy various measures that permit shedding and loading of selective loads. Offsite power associated with unit 2 may not be available due to a loss of HVAC to Bus 2F, however this is contingent upon the survivability timeframe or a potential paralleling of offsite and diesel sources due to fire induced circuit failure. Failure to ensure the availability of AC power challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-042-SEP-005	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - The Pressurizer Heaters are required off in order control RCS Pressure, and avoid overpressure transients. A loss of control power to DC Bus 1H would prevent remote tripping of Pressurizer Heater Group E. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-053 - Aux Building Elevator Machine Room No. 2	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0502	502 Elevator Machine Room No. 2

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-053 - Aux Building Elevator Machine Room No. 2 Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> • Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray are not operating. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. • Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-053 - Aux Building Elevator Machine Room No. 2	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-053 - Aux Building Elevator Machine Room No. 2	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-053 - Aux Building Elevator Machine Room No. 2	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-053 - Aux Building Elevator Machine Room No. 2	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
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Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.
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Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0503	503 Elevator Machine Room No. 1 and Elevator No. 1 Shaft

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump aligned to Train A / Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A/Train B charging pump (s) or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 1: Positive control of RCS pressure is accomplished with aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A/Train B MDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria


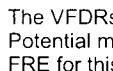
Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-054	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-054-IA-001	
VFDR	Q1E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1E21V0243 - This valve directs flow to the RCS via the alternate charging line. Instrument air is required to support the close function of the valve in order to provide a sufficient pressure gradient to de-pressurize the RCS via aux spray. A loss of instrument air would result in the valve failing full open thus challenging the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-054-IA-002	
VFDR	Q1E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1E21V0244- This valve directs flow to the RCS cold leg and constitutes the normal charging line. Instrument air is required to support the modulating capability of the valve in order to provide a sufficient pressure gradient to de-pressurize the RCS via aux spray. A loss of instrument air would result in the valve failing full open thus challenging the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-054-IA-003	
VFDR	Q1E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1E21V0245-This valve controls the charging flow to the pressurizer (known as aux spray) in order to facilitate RCS de-pressurization. Instrument air is required to cycle the valve open and close in order to accommodate RCS pressure requirements. A loss of instrument air will result in the valve failing closed, thus posing a challenge to the RCS Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-054-IA-004	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1E21V0347-This valve controls the normal charging flow inventory to the RCS. Instrument air is required to support the modulating capability of this valve in order to control charging inventory flow to the RCS in order to facilitate inventory makeup and pressurizer aux spray. A loss of instrument air would result in the valve failing full open thus posing a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-054-IA-005	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N11PV3371A- The Main Steam Atmospheric Relief valve is designed to open in order to relieve steam generator pressure prior to the opening of the safety relief valves. The valves modulate in order to vent steam to the atmosphere a facilitate plant shutdown. A loss of instrument air would result in the valves failing closed and prevent steam generator relief. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-054-IA-006	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N23HV3228B- This valve supplies feed water from the TDAFW Pump. A loss of instrument air could result in the valve failing open and potentially result in a steam generator overfill/overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-054 - Aux Building Elevator Machine Room No. 1 and Elevator No. 1 Shaft	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-054-IA-007	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N23HV3228C- This valve supplies feed water from the TDAFW Pump. A loss of instrument air could result in the valve failing open and potentially result in a steam generator overfill/overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-CTMT	Containment, Unit 1

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump aligned to Train A / Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 1: Normal letdown is isolated using performance-based approach orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is performance-based approach isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are performance-based approach isolated using Train A PORV and Train B PORV or the PORV block valves. The RCS to RHR high/low pressure interface is performance-based approach isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. • Unit 2: Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> • Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A/Train B charging pump(s) or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. • Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	<p>pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.</p> <ul style="list-style-type: none"> Unit 1: Undesired depressurization due to inadvertent spray is performance-based approach prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 1: Positive control of RCS pressure is accomplished with performance-based approach Train A PORV, Train B PORV or aux spray for pressure reduction and performance-based approach Pressurizer Heater Group B for pressure increase. Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A/Train B MDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - Performance-based approach RCS pressure is monitored. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2/Loop 3 temperature is monitored. 5. SG Pressure - Performance-based approach Steam Generator 1A/1B/1C} pressure is monitored. 6. SG Level - Performance-based approach Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by 	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in Containment. There are no automatic suppression systems in Containment. Equipment is qualified for harsh environment, including water spray and vital equipment is located above the sump submergence level that would be expected during fire suppression activities. Therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-22	DID Criteria	Required to meet DID criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


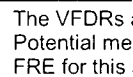
Fire Area ID:	1-055 - Containment	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-055	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-001	
VFDR	N1B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-002	
VFDR	N1B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-003	
VFDR	N1B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-004	
VFDR	N1B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-005	
VFDR	N1B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-006	
VFDR	N1B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-007	
VFDR	N1B31LI0459A:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-459A (PROTECTION CHANNEL I) - Pressurizer Channel 1, 2, or 3 level indicators provide level indication in the main control room. Fire induced cable damage to instrumentation cables of the indicators could result in inaccurate pressurizer level indication resulting in the potential loss of RCS inventory through the PORVs or relief valves. Failure of the indicators challenges the RCS Inventory Control. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-008	
VFDR	N1B31LI0460:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-460 (PROTECTION CHANNEL II) - Pressurizer Channel 1, 2, or 3 level indicators provide level indication in the main control room. Fire induced cable damage to instrumentation cables of the indicators could result in inaccurate pressurizer level indication resulting in the potential loss of RCS inventory through the PORVs or relief valves. Failure of the indicators challenges the RCS Inventory Control. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-009	
VFDR	N1B31LI0461:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-461 (PROTECTION CHANNEL III) - Pressurizer Channel 1, 2, or 3 level indicators provide level indication in the main control room. Fire induced cable damage to instrumentation cables of the indicators could result in inaccurate pressurizer level indication resulting in the potential loss of RCS inventory through the PORVs or relief valves. Failure of the indicators challenges the RCS Inventory Control. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-010	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N1B31PI0444:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE CONTROL INDICATOR PI-444 - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-011	
VFDR	N1B31PI0445:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE CONTROL INDICATOR PI-445 - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-012	
VFDR	N1B31PI0455:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-455 (PROTECTION CHANNEL I) - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-013	
VFDR	N1B31PI0456:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-456 (PROTECTION CHANNEL II) - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-014	
VFDR	N1B31PI0457:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-457 (PROTECTION CHANNEL III) - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-015	
VFDR	N1C22LI0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL INDICATOR LI-474 (PROTECTION CHANNEL I) - N1C22LI0476 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0475 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0474 - Steam Generator 1A Narrow Range Level Indicator; N1N11LR0477 (LT477) - Steam Generator 1A Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-016	
VFDR	N1C22LI0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL INDICATOR LI-475 (PROTECTION CHANNEL II) - N1C22LI0476 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0475 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0474 - Steam Generator 1A Narrow Range Level Indicator; N1N11LR0477 (LT477) - Steam Generator 1A Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-017	
VFDR	N1C22LI0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL INDICATOR LI-476 (PROTECTION CHANNEL III) - N1C22LI0476 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0475 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0474 - Steam Generator 1A Narrow Range Level Indicator; N1N11LR0477 (LT477) - Steam Generator 1A Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N1C22LI0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL INDICATOR LI-484 (PROTECTION CHANNEL I) - N1C22LI0486 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0485 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0484 - Steam Generator 1B Narrow Range Level Indicator; N1N11LR0477 (LT487) - Steam Generator 1B Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-019	
VFDR	N1C22LI0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL INDICATOR LI-485 (PROTECTION CHANNEL II) - N1C22LI0486 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0485 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0484 - Steam Generator 1B Narrow Range Level Indicator; N1N11LR0477 (LT487) - Steam Generator 1B Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-020	
VFDR	N1C22LI0486:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL INDICATOR LI-486 (PROTECTION CHANNEL III) - N1C22LI0486 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0485 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0484 - Steam Generator 1B Narrow Range Level Indicator; N1N11LR0477 (LT487) - Steam Generator 1B Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-021	
VFDR	N1C22LI0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL INDICATOR LI-494 (PROTECTION CHANNEL I) - N1C22LI0496 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0495 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0494 - Steam Generator 1C Narrow Range Level Indicator; N1N11LR0477 (LT497) - Steam Generator 1C Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-022	
VFDR	N1C22LI0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL INDICATOR LI-495 (PROTECTION CHANNEL II) - N1C22LI0496 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0495 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0494 - Steam Generator 1C Narrow Range Level Indicator; N1N11LR0477 (LT497) - Steam Generator 1C Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-023	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N1C22LI0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL INDICATOR LI-496 (PROTECTION CHANNEL III) - N1C22LI0496 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0495 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0494 - Steam Generator 1C Narrow Range Level Indicator; N1N11LR0477 (LT497) - Steam Generator 1C Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-024	
VFDR	N1C55NI0031B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B; N1C55NI0032B - Source Range Count Rate Indicator NI-32B. These indicators are normally available, only one of the indicators is required available to provide process monitoring Reactivity Control Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the reactivity, and a challenge to the process monitoring capability of Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-025	
VFDR	N1C55NI0032B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B; N1C55NI0032B - Source Range Count Rate Indicator NI-32B. These indicators are normally available, only one of the indicators is required available to provide process monitoring Reactivity Control Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the reactivity, and a challenge to the process monitoring capability of Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-026	
VFDR	N1N11LR0477:AVAILABLE-LT477:AVAILABLE-LT477, STEAM GENERATOR 1A, 1B, 1C, WIDE RANGE LEVEL RECORDER - N1C22LI0476 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0475 - Steam Generator 1A Narrow Range Level Indicator; N1C22LI0474 - Steam Generator 1A Narrow Range Level Indicator; N1N11LR0477 (LT477) - Steam Generator 1A Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-027	
VFDR	N1N11LR0477:AVAILABLE-LT487:AVAILABLE-LT487, STEAM GENERATOR 1A, 1B, 1C, WIDE RANGE LEVEL RECORDER - N1C22LI0486 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0485 - Steam Generator 1B Narrow Range Level Indicator; N1C22LI0484 - Steam Generator 1B Narrow Range Level Indicator; N1N11LR0477 (LT487) - Steam Generator 1B Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-028	
VFDR	N1N11LR0477:AVAILABLE-LT497:AVAILABLE-LT497, STEAM GENERATOR 1A, 1B, 1C, WIDE RANGE LEVEL RECORDER - N1C22LI0496 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0495 - Steam Generator 1C Narrow Range Level Indicator; N1C22LI0494 - Steam Generator 1C Narrow Range Level Indicator; N1N11LR0477 (LT497) - Steam Generator 1C Wide Range Level Recorder. These indicators are normally available, only one of the indicators from the credited Steam Generator is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-029	
VFDR	Q1B13HV0001:CLOSED:CLOSED, RX VESSEL HEAD VENT - Q1B13HV0001 - Reactor Vessel Head Vent and Q1B13HV0002 - Reactor Vessel Head Vent. These valves are normally closed, required closed to prevent loss of RCS inventory. Fire induced cable damage may result in spurious opening of both valves, a diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-030	
VFDR	Q1B13HV0002:CLOSED:CLOSED, RX VESSEL HEAD VENT - Q1B13HV0001 - Reactor Vessel Head Vent and Q1B13HV0002 - Reactor Vessel Head Vent. These valves are normally closed, required closed to prevent loss of RCS inventory. Fire induced cable damage may result in spurious opening of both valves, a diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-031	
VFDR	Q1B13HV0003:CLOSED:CLOSED, RX VESSEL HEAD VENT - Q1B13HV0003 - Reactor Vessel Head Vent and Q1B13HV0004 - Reactor Vessel Head Vent. These valves are normally closed, required closed to prevent loss of RCS inventory. Fire induced cable damage may result in spurious opening of both valves, a diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-032	
VFDR	Q1B13HV0004:CLOSED:CLOSED, RX VESSEL HEAD VENT - Q1B13HV0003 - Reactor Vessel Head Vent and Q1B13HV0004 - Reactor Vessel Head Vent. These valves are normally closed, required closed to prevent loss of RCS inventory. Fire induced cable damage may result in spurious opening of both valves, a diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-033	
VFDR	Q1B21PI0402A:AVAILABLE:AVAILABLE, RCS LOOP C WIDE RANGE PRESSURE INDICATOR PI-402A - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-034	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1B21PI0403A:AVAILABLE:AVAILABLE, RCS LOOP A WIDE RANGE PRESSURE INDICATOR PI-403A - N1B31PI0444 - Pressurizer Pressure; N1B31PI0455 - Pressurizer Pressure; N1B31PI0456 - Pressurizer Pressure; N1B31PI0457 - Pressurizer Pressure; N1B31PI0445 - Pressurizer Pressure; Q1B21PI0402A - RCS Loop C Wide Range Pressure; Q1B21PI0403A - RCS Loop A Wide Range Pressure. These indicators are normally available, only one of the indicators is required available to provide process monitoring RCS Inventory and Pressure Control Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to monitor the RCS, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-035	
VFDR	Q1B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 1B DISTRIBUTION PANEL - Due to the necessity of maintaining safe and stable conditions for a period of time longer than 24 hours, positive control of the pressurizes is credited; pressurizer heater Group 1B is credited in Fire Area 1-055. Fire induced cable damage to the power cables of individual heater elements could render Pressurizer Heater Group 1B unavailable for temperature control. Failure of Pressurizer Group 1B challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-036	
VFDR	Q1B31PT0455:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE TRANSMITTER PROTECTION CHANNEL I - Although not needed for maintaining safe and stable conditions, a spurious safety injection actuation signal (SIAS) could spuriously start the RHR/LHSI pumps resulting in permanent damage. Fire induced damage to the pressurizer pressure transmitters (located in the fire area) or their associated instrumentation cables could result in a spurious safety injection actuation signal (SIAS) thus damaging the RHR/LHSI pumps and challenging the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-037	
VFDR	Q1B31PT0456:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE TRANSMITTER PROTECTION CHANNEL II - Although not needed for maintaining safe and stable conditions, a spurious safety injection actuation signal (SIAS) could spuriously start the RHR/LHSI pumps resulting in permanent damage. Fire induced damage to the pressurizer pressure transmitters (located in the fire area) or their associated instrumentation cables could result in a spurious safety injection actuation signal (SIAS) thus damaging the RHR/LHSI pumps and challenging the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-038	
VFDR	Q1B31PT0457:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE TRANSMITTER PROTECTION CHANNEL III - Although not needed for maintaining safe and stable conditions, a spurious safety injection actuation signal (SIAS) could spuriously start the RHR/LHSI pumps resulting in permanent damage. Fire induced damage to the pressurizer pressure transmitters (located in the fire area) or their associated instrumentation cables could result in a spurious safety injection actuation signal (SIAS) thus damaging the RHR/LHSI pumps and challenging the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-039	
VFDR	Q1B31V0027A:OPEN:OPEN/CLOSED, PRESSURIZER PORV ISOLATION - Q1B31V0027A - Pressurizer PORV Isolation; Q1B31V0053 - Pressurizer PORV. The PORV is normally closed and isolation valve normally open, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-040	
VFDR	Q1B31V0027A:OPEN:OPEN/CLOSED, PRESSURIZER PORV ISOLATION - Q1B31V0027B - Pressurizer PORV Isolation and Q1B31V0061 - Pressurizer PORV; Q1B31V0027A - Pressurizer PORV Isolation and Q1B31V0053 - Pressurizer PORV. The normally open PORV isolation valve and normally closed PORV valves requires isolation valve to remain open and PORV to cycle to control RCS pressure transient. Fire induced cable damage may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-041	
VFDR	Q1B31V0027B:OPEN:OPEN/CLOSED, PRESSURIZER PORV ISOLATION - Q1B31V0027B - Pressurizer PORV Isolation; Q1B31V0061 - Pressurizer PORV. The PORV is normally closed and isolation valve normally open, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-042	
VFDR	Q1B31V0027B:OPEN:OPEN/CLOSED, PRESSURIZER PORV ISOLATION - Q1B31V0027B - Pressurizer PORV Isolation and Q1B31V0061 - Pressurizer PORV; Q1B31V0027A - Pressurizer PORV Isolation and Q1B31V0053 - Pressurizer PORV. The normally open PORV isolation valve and normally closed PORV valves requires isolation valve to remain open and PORV to cycle to control RCS pressure transient. Fire induced cable damage may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-043	
VFDR	Q1B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER PORV - Q1B31V0027A - Pressurizer PORV Isolation; Q1B31V0053 - Pressurizer PORV. The PORV is normally closed and isolation valve normally open, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-044	
VFDR	Q1B31V0056:MODULATED:CLOSED, PRESSURIZER SPRAY VALVE - Q1B41P0001A - RCP 1A; Q1B31V0056 - Pressurizer Spray Valve. This normally running pump is required to be turned off or the normally modulated pressurizer spray valve needs to be closed to prevent uncontrolled RCS pressure transient. Fire induced cable damage may result in the inability to trip the RCP from the Control Room or spray valve cables and instrument cables/tubing can prevent ability to close spray valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-045	
VFDR	Q1B31V0056:MODULATED:CLOSED, PRESSURIZER SPRAY VALVE - Q1B31V0027B - Pressurizer PORV Isolation and Q1B31V0061 - Pressurizer PORV; Q1B31V0027A - Pressurizer PORV Isolation and Q1B31V0053 - Pressurizer PORV. The normally open PORV isolation valve and normally closed PORV valves requires isolation valve to remain open and PORV to cycle to control RCS pressure transient. Fire induced cable damage may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-046	
VFDR	Q1B31V0060:MODULATED:CLOSED, PRESSURIZER SPRAY VALVE - Q1B41P0001B - RCP 1B; Q1B31V0060 - Pressurizer Spray Valve. This normally running pump is required to be turned off or the normally modulated pressurizer spray valve needs to be closed to prevent uncontrolled RCS pressure transient. Fire induced cable damage may result in the inability to trip the RCP from the Control Room or spray valve cables and instrument cables/tubing can prevent ability to close spray valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-047	
VFDR	Q1B31V0060:MODULATED:CLOSED, PRESSURIZER SPRAY VALVE - Q1B31V0027B - Pressurizer PORV Isolation and Q1B31V0061 - Pressurizer PORV; Q1B31V0027A - Pressurizer PORV Isolation and Q1B31V0053 - Pressurizer PORV. The normally open PORV isolation valve and normally closed PORV valves requires isolation valve to remain open and PORV to cycle to control RCS pressure transient. Fire induced cable damage may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-048	
VFDR	Q1B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER PORV - Q1B31V0027B - Pressurizer PORV Isolation; Q1B31V0061 - Pressurizer PORV. The PORV is normally closed and isolation valve normally open, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-049	
VFDR	Q1B41P0001A:ON:OFF, RCP 1A - Q1B41P0001A - RCP 1A. This normally running pump is required to be turned off to prevent RCS inventory losses via seal damage and to meet thermo hydraulic analyzed conditions. Fire induced cable damage may result in the inability to trip the RCP from the Control Room, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-050	
VFDR	Q1B41P0001A:ON:OFF, RCP 1A - Q1B41P0001A - RCP 1A; Q1B31V0056 - Pressurizer Spray Valve. This normally running pump is required to be turned off or the normally modulated pressurizer spray valve needs to be closed to prevent uncontrolled RCS pressure transient. Fire induced cable damage may result in the inability to trip the RCP from the Control Room or spray valve cables and instrument cables/tubing can prevent ability to close spray valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-052	
VFDR	Q1B41P0001B:ON:OFF, RCP 1B - Q1B41P0001B - RCP 1B. This normally running pump is required to be turned off to prevent RCS inventory losses via seal damage and to meet thermo hydraulic analyzed conditions. Fire induced cable damage may result in the inability to trip the RCP from the Control Room, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-053	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1B41P0001B:ON:OFF, RCP 1B - Q1B41P0001B - RCP 1B; Q1B31V0060 - Pressurizer Spray Valve. This normally running pump is required to be turned off or the normally modulated pressurizer spray valve needs to be closed to prevent uncontrolled RCS pressure transient. Fire induced cable damage may result in the inability to trip the RCP from the Control Room or spray valve cables and instrument cables/tubing can prevent ability to close spray valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-055	
VFDR	Q1B41P0001C:ON:OFF, RCP 1C - Q1B41P0001C - RCP 1C. This normally running pump is required to be turned off to prevent RCS inventory losses via seal damage and to meet thermo hydraulic analyzed conditions. Fire induced cable damage may result in the inability to trip the RCP from the Control Room, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-057	
VFDR	Q1C22LT0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-058	
VFDR	Q1C22LT0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-059	
VFDR	Q1C22LT0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-060	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q1C22LT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-061
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VFDR	Q1C22LT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-062
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Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR Q1C22LT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-063

VFDR Q1C22LT0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-064

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR Q1C22LT0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-065

VFDR Q1C22LT0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 1A NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-066

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR Q1C22LT0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam-Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-067

VFDR Q1C22LT0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-068

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q1C22LT0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-069
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VFDR	Q1C22LT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-070
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Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1C22LT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-071	
VFDR	Q1C22LT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-072	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q1C22LT0486:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-073
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VFDR	Q1C22LT0486:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-074
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Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR Q1C22LT0486:AVAILABLE:AVAILABLE, STEAM GENERATOR 1B NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-075

VFDR Q1C22LT0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-055-SEP-076

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1C22LT0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-077	
VFDR	Q1C22LT0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL I - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-078	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1C22LT0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-079	
VFDR	Q1C22LT0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-080	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1C22LT0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL II - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-081	
VFDR	Q1C22LT0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-082	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q1C22LT0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-083
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VFDR	Q1C22LT0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL TRANSMITTER PROTECTION CHANNEL III - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U1-1-055-SEP-084
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Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1E11V0001A:CLOSED:CLOSED, 1C RCS LOOP TO 1A RHR PUMP - Q1E11V0001A - 1C RCS Loop to 1A RHR Pump; Q1E11V0016A - 1C RCS Loop to 1A RHR Pump. These valves are the high-low pressure interface. They are normally closed, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-085	
VFDR	Q1E11V0001B:CLOSED:CLOSED, 1A RCS LOOP TO 1B RHR PUMP - Q1E11V0001B - 1A RCS Loop to 1B RHR Pump; Q1E11V0016B - 1A RCS Loop to 1B RHR Pump. These valves are the high-low pressure interface. They are normally closed, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-086	
VFDR	Q1E11V0016A:CLOSED:CLOSED, 1C RCS LOOP TO 1A RHR PUMP - Q1E11V0001A - 1C RCS Loop to 1A RHR Pump; Q1E11V0016A - 1C RCS Loop to 1A RHR Pump. These valves are the high-low pressure interface. They are normally closed, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-087	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1E11V0016B:CLOSED:CLOSED, 1A RCS LOOP TO 1B RHR PUMP - Q1E11V0001B - 1A RCS Loop to 1B RHR Pump; Q1E11V0016B - 1A RCS Loop to 1B RHR Pump. These valves are the high-low pressure interface. They are normally closed, only one of the valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-055-SEP-088	
VFDR	Q1E21V0183:CLOSED:CLOSED, EXCESS LETDOWN HX DISCHARGE - Q1E21V0247 - Excess Letdown Isolation; Q1E21V0250 - Excess Letdown Divert; Q1E21V0246 - Excess Letdown Isolation; Q1E21V0183 - Excess Letdown Heat Exchanger discharge. These valves are normally closed, only one of the isolation valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-089	
VFDR	Q1E21V0243:CLOSED:OPEN, RCS ALTERNATE CHARGING LINE - Q1E21V0243 - RCS Alternate Charging Line and Q1E21V0244 - RCS Normal Charging Line. The normal charging valve is normally open and the alternate charging line is normally closed at least one valve is required open to provide charging for Reactivity and Inventory Control. Fire induced damage to cables may result in spuriously closing of the valves, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-090	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - Q1E21V0243 - RCS Alternate Charging Line and Q1E21V0244 - RCS Normal Charging Line. The normal charging valve is normally open and the alternate charging line is normally closed at least one valve is required open to provide charging for Reactivity and Inventory Control. Fire induced damage to cables may result in spuriously closing of the valves, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-091	
VFDR	Q1E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - Q1E21V0245 - RCS Pressurizer Aux Spray Valve. This normally closed valve required closed to prevent uncontrolled RCS pressure transient. Fire induced cable damage may result in spuriously opening of the valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-092	
VFDR	Q1E21V0246:CLOSED:CLOSED, EXCESS LETDOWN ISOLATION VALVE - Q1E21V0247 - Excess Letdown Isolation; Q1E21V0250 - Excess Letdown Divert; Q1E21V0246 - Excess Letdown Isolation; Q1E21V0183 - Excess Letdown Heat Exchanger discharge. These valves are normally closed, only one of the isolation valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-093	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q1E21V0247:CLOSED:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q1E21V0247 - Excess Letdown Isolation; Q1E21V0250 - Excess Letdown Divert; Q1E21V0246 - Excess Letdown Isolation; Q1E21V0183 - Excess Letdown Heat Exchanger discharge. These valves are normally closed, only one of the isolation valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-094	
VFDR	Q1E21V0250:TO VCT:TO VCT, EXCESS LETDOWN DIVERT VALVE - Q1E21V0247 - Excess Letdown Isolation; Q1E21V0250 - Excess Letdown Divert; Q1E21V0246 - Excess Letdown Isolation; Q1E21V0183 - Excess Letdown Heat Exchanger discharge. These valves are normally closed, only one of the isolation valves is required closed to prevent loss of RCS inventory. Fire induced cable damage to component may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-095	
VFDR	Q1E21V0253A:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 45 GPM - Q1E21HV8149A, Q1E21HV8149B, Q1E21HV8149C - Letdown Orifice Isolation; Q1E21V0367 - Letdown Line Isolation; Q1E21V0368 - Letdown Line Isolation. These valves are normally open, only one of the Letdown Line isolation valves or all three Letdown Orifice isolation valves are required closed to prevent loss of RCS inventory. Fire induced cable damage to component or instrument cabling/tubing may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-096	
VFDR	Q1E21V0253B:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 60 GPM - Q1E21HV8149A, Q1E21HV8149B, Q1E21HV8149C - Letdown Orifice Isolation; Q1E21V0367 - Letdown Line Isolation; Q1E21V0368 - Letdown Line Isolation. These valves are normally open, only one of the Letdown Line isolation valves or all three Letdown Orifice isolation valves are required closed to prevent loss of RCS inventory. Fire induced cable damage to component or instrument cabling/tubing may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-097	
VFDR	Q1E21V0253C:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 60 GPM - Q1E21HV8149A, Q1E21HV8149B, Q1E21HV8149C - Letdown Orifice Isolation; Q1E21V0367 - Letdown Line Isolation; Q1E21V0368 - Letdown Line Isolation. These valves are normally open, only one of the Letdown Line isolation valves or all three Letdown Orifice isolation valves are required closed to prevent loss of RCS inventory. Fire induced cable damage to component or instrument cabling/tubing may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-098	
VFDR	Q1E21V0367:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Q1E21HV8149A, Q1E21HV8149B, Q1E21HV8149C - Letdown Orifice Isolation; Q1E21V0367 - Letdown Line Isolation; Q1E21V0368 - Letdown Line Isolation. These valves are normally open, only one of the Letdown Line isolation valves or all three Letdown Orifice isolation valves are required closed to prevent loss of RCS inventory. Fire induced cable damage to component or instrument cabling/tubing may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-055-SEP-099	
VFDR	Q1E21V0368:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Q1E21HV8149A, Q1E21HV8149B, Q1E21HV8149C - Letdown Orifice Isolation; Q1E21V0367 - Letdown Line Isolation; Q1E21V0368 - Letdown Line Isolation. These valves are normally open, only one of the Letdown Line isolation valves or all three Letdown Orifice isolation valves are required closed to prevent loss of RCS inventory. Fire induced cable damage to component or instrument cabling/tubing may result in failure to isolate this diversion of flow from the RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-100	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-101	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-055 - Containment	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
	805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-055-SEP-102	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. Q1C22LT0474 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0475 - Steam Generator 1A Narrow Range Level Transmitter; Q1C22LT0476 - Steam Generator 1A Narrow Range Level Transmitter. Q1C22LT0484 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0485 - Steam Generator 1B Narrow Range Level Transmitter; Q1C22LT0486 - Steam Generator 1B Narrow Range Level Transmitter. Q1C22LT0494 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0495 - Steam Generator 1C Narrow Range Level Transmitter; Q1C22LT0496 - Steam Generator 1C Narrow Range Level Transmitter. The valve is normally open required throttled. The transmitters are normally available, only two of the transmitters per steam generator are required available to provide control to allow throttling of valve or two of either LT474, LT485 or LT496 for Decay Heat Removal Nuclear Performance Criteria. Fire induced cable/tubing damage to component may result in failure to control the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-075-U1 - Unit 1 Cable Tunnel - Train A		Fire Area Definition
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		

Fire Zone ID	Description
1-075-U1	Unit 1 Cable Tunnel - Train A

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-075-U1 - Unit 1 Cable Tunnel - Train A Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A		Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Water Suppression	1D-77	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1D-77	DID Criteria	Required to meet DID criteria.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to replace trip device in panel Q1R42B0001A, breaker LA13.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-075-U1 - Unit 1 Cable Tunnel - Train A NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 1-075-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s), specified recovery actions and the installed suppression system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available and the installed suppression system were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-075-IA-001	
VFDR	Q1B31V0061:OPEN/CLOSED:OPEN/CLOSED, PRESSURIZER PORV - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1B31V0061 - Pressurizer PORV. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-001	
VFDR	N1B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-075-SEP-002	
VFDR	N1B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-075-SEP-003	
VFDR	N1B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-075-SEP-004	
VFDR	N1B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-075-SEP-005	
VFDR	N1B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-075-SEP-006	
VFDR	N1B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-075-SEP-007	
VFDR	N1C55NI0031B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-075-SEP-008	
VFDR	N1C55NI0032B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-075-SEP-009	
VFDR	Q1E11P0001A:OFF:ON/OFF, 1A RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-010	
VFDR	Q1E11P0001B:OFF:ON/OFF, 1B RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-013	
VFDR	Q1E21P0002A:STANDBY:ON/OFF, 1A CHARGING/HHSI PUMP - Q1E21P0002A - 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-014	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21P0002B:STANDBY:ON/OFF-TRAIN A, 1B CHARGING/HHSI PUMP - Q1E21P0002A - 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-015	
VFDR	Q1E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage may generate a SIAS to cause a failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-016	
VFDR	Q1E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced damage to cascading power supply to instruments cabinets (SIAS) may spuriously operate valve after battery depletion or after battery fails due to environmental concerns preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-017	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q1E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. Fire induced damage due to cascading power supply to instruments cabinets, and instrument air failures may prevent valve positioning, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-018	
VFDR	Q1E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage on cascading power supply to instruments cabinets (SIAS) may spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-019	
VFDR	Q1E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage on cascading power supply to instruments cabinets (SIAS) may spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-020	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage to instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-075-SEP-021	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage to instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-075-SEP-022	
VFDR	Q1N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage to instrument air components, and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-075-SEP-023	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q1N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage generates a spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-024	
VFDR	Q1N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q1N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage generates a spurious instrument signals on loss of battery may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-025	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q1N23P0002 - TDAFW Pump; Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-026	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q1N23P0002 - TDAFW Pump; Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-027	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-028	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-029	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-030	
VFDR	Q1N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q1N23P0002 - TDAFW Pump; Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-031	
VFDR	Q1R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1B - Q1E21P0002A - 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-075-SEP-032	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U1 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E21P0002A - 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-075-U2	Unit 1 Cable Tunnel - Train A

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


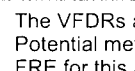
Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-075-U2 - Unit 1 Cable Tunnel - Train A		Required Fire Protection Systems and Features
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Water Suppression	1D-77	EEEE/LA	Required to support a fire boundary evaluation.	
Water Suppression	1D-77	DID Criteria	Required to meet DID criteria.	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-075-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions and the installed suppression system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed suppression system was identified as required for DID	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-075-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A, requires HVAC support to remain functional. Failure to ensure availability of HVAC for this electrical component challenges electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-1-075-HVAC-002	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2F - This component, Switchgear 2F, requires HVAC support to remain functional. Failure to provide HVAC support to this Electrical Component challenges electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-075-HVAC-003	
VFDR	Q2R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2A - This component, MCC 2A, requires HVAC support to remain functional. Failure to ensure HVAC availability of this component challenges electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-075-SEP-001	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-075-U2 - Unit 1 Cable Tunnel - Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1F - Fire induced circuit failure to the sequencer circuit could impact power availability if offsite power is not available. Without proper sequencer operation, the Diesel Generator will not be able to satisfy various measures that permit shedding and loading of selective loads. Offsite power associated with unit 2 may not be available due to a loss of HVAC to Bus 2F, however this is contingent upon the survivability timeframe. Failure to ensure the availability of AC power challenges electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-076-U1	Unit 1 Cable Tunnel - Train B

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group A for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 1A/1B. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 1/Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored..	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


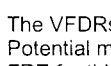
Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-076-U1 - Unit 1 Cable Tunnel - Train B		Required Fire Protection Systems and Features	
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments		
Water Suppression	1D-98	EEEE/LA	Required to support a fire boundary evaluation.		
Water Suppression	1D-98	DID Criteria	Required to meet DID criteria.		
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.		
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.		
Modifications		Risk Criteria	Modification to replace trip device in panel Q1R42B0001B, breaker LB07.		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-076-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with specified recovery actions and the installed suppression system and modification(s), the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed suppression system was identified as required for DID	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-076-IA-001	
VFDR	Q1B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER PORV - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-076-IA-002	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. Fire induced damage due to instrument air failures may prevent valve positioning, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-IA-003	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage to instrument air components prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-076-IA-004	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage to instrument air components prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-IA-005	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage to instrument air components may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-IA-006	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage to instrument air components may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-076-IA-007	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage to instrument air components may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-001	
VFDR	N1B31PT0445:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE CONTROL PRESSURE TRANSMITTER - Q1B31V0053 - Pressurizer PORV; N1B31PT0445 - Pressurizer Pressure Control Pressure Transmitter. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components and transmitter signal prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-002	
VFDR	Q1E11P0001A:OFF:ON/OFF, 1A RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-003	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E11P0001B:OFF:ON/OFF, 1B RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal to spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-006	
VFDR	Q1E21P0002B:STANDBY:ON/OFF-TRAIN B, 1B CHARGING/HHSI PUMP - Q1E21P0002C - 1C Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001F - 125Vdc Distribution Panel 1F; Q1R43E0001B - Sequencer Bus 1G. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-007	
VFDR	Q1E21P0002C:STANDBY:ON/OFF, 1C CHARGING/HHSI PUMP - Q1E21P0002C - 1C Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001F - 125Vdc Distribution Panel 1F; Q1R43E0001B - Sequencer Bus 1G. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-008	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

VFDR Q1E21V0016B:CLOSED:CLOSED-TRAINB, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016B - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage due to cascading power supply to instruments cabinets (SIAS) after battery depletion or after battery fails due to environmental concerns may cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-076-SEP-009

VFDR Q1E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced damage to cascading power supply to instruments cabinets (SIAS) may spuriously operate valve after battery depletion or after battery fails due to environmental concerns preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-076-SEP-010

VFDR Q1E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0258 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage and spurious SIAS signal may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.

Disposition This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.

VFDR ID U1-1-076-SEP-011

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage on cascading power supply to instruments cabinets (SIAS) may spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-012	
VFDR	Q1E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage on cascading power supply to instruments cabinets (SIAS) may spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-013	
VFDR	Q1R41L0001E:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1E - Q1E21P0002C - 1C Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001E - 125Vdc Distribution Panel 1E; Q1R43E0001B - Sequencer Bus 1G. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-076-SEP-014	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U1 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1G - Q1E21P0002C - 1C Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001F - 125Vdc Distribution Panel 1F; Q1R43E0001B - Sequencer Bus 1G. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-076-U2	Unit 1 Cable Tunnel - Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	



Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Water Suppression	1D-98	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1D-98	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-076-U2 - Unit 1 Cable Tunnel - Train B NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 1-076-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed suppression system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed suppression system was identified as required for DID	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-076-U2 - Unit 1 Cable Tunnel - Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-076-SEP-001	
VFDR	Q1P16V0522:CLOSED:CLOSED, SW TO D/G 1B - In order to preserve SW supply inventory, valve Q1P16V0422 which supplies the Unit 2 DG with service water must be isolated. Fire induced circuit failure could result in spurious opening of the valve, thereby limiting the amount of Service Water Inventory. Failure to ensure the establishment of Service Water challenges service water Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-076-SEP-002	
VFDR	Q1R16B0509:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1S/2S - Load Center 1S/2S is required to support the functionality of the Service Water Emergency Recirculation valve Q2P16V0538, which must open in order to support the establishment of Train B Service Water. The cited circuit failures on Cables 1DBES02F and 1VBL1E10A may result in a loss of DC control power to the load center, but not the AC supply. Furthermore a fault on cable 1DYES07P would require a loss of control power on the respective load breaker to cause a loss of the supply. If the Load Center is able to remain intact in order to support the pond recirculation lineup (i.e. open Valve V0538) then loss of the supply afterwards is irrelevant. Failure to establish Train B Independent Service Water prevents the establishment of Train B Power, which challenges service water Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-1-076-SEP-003	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Service Water Recirculation to the Pond is credited in the analysis. Valve Q2P16V0538 (SW Recirc to Pond) is required open to establish the recirculation lineup. Fire induced circuit damage to the cited circuit can only disable the auto-open feature of the valve, or spuriously open the valve. These failures enforce the credited functionality. If timing requirements are necessary to establish a recirc lineup however, inopportune opening of the valve could pose a problem. Failure to establish SW challenges service water Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-077 - Condensate Storage Tank		Fire Area Definition
Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		
Fire Zone ID	Description	
1-CST	Condensate Storage Tank	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-077 - Condensate Storage Tank Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> • Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray are not operating. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. • Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-077 - Condensate Storage Tank Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-077 - Condensate Storage Tank	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-077 - Condensate Storage Tank	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-077 - Condensate Storage Tank	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
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Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.
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Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-078 - Reactor Makeup Storage Tank	Fire Area Definition
Compliance Basis:		NFPA 805, Section 4.2.3 Deterministic Approach	
Fire Zone ID	Description		
1-RWMT	Reactor Makeup Storage Tank		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-078 - Reactor Makeup Storage Tank Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray are not operating. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-078 - Reactor Makeup Storage Tank	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-078 - Reactor Makeup Storage Tank	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-078 - Reactor Makeup Storage Tank	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-078 - Reactor Makeup Storage Tank	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-RWST	Refueling Water Storage Tank

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> • Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray are not operating. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. • Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers
Revision	3

Inactive	No
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Functionally Equivalent	No
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Adequate for the Hazard	Yes
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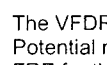
Summary	Purpose:
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This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.

Bases for Acceptability:

- The fire areas, fire zones and rooms on both sides of the barrier were identified,
- The construction of the boundary and the potential issue with the element in question was described,
- The fire hazards and fire protection features on both sides of the barrier were described,
- Elements with construction features equal to 3-hr boundaries were credited as such,
- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-079	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-079 - Refueling Water Storage Tank	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-079-SEP-001	
VFDR	N1F16LI4075A:ENERGIZED:ENERGIZED, RWST A TRAIN LEVEL INDICATOR - RWST indication is required in order to monitor the inventory level in the RWST, as the RWST is the credited suction source for RCS Makeup. Fire induced circuit failure to the RWST level instrumentation N1F16LI4075A and N1F16LI4075B could render the instrumentation unavailable and/or result in erroneous indication. This failure challenges the RCS Inventory Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-080 - Low Voltage Switchyard - Unit 1	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-080A	Main Transformer No.3
1-080B	Main Transformer No.2
1-080C	Main Transformer No.1
1-080D	Main Transformer (Spare)
1-080E	Unit Aux Transformer No. 1A
1-080F	Unit Aux Transformer (Spare Cubicle)
1-080G	Startup Aux Transformer No. 1A
1-080H	Startup Aux Transformer No. 1B
1-080J	Startup Aux Transformer (Spare)
1-080K	Low Voltage Switchyard - General Area, Unit 1

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-080 - Low Voltage Switchyard - Unit 1 Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray are not operating. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-080 - Low Voltage Switchyard - Unit 1 Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-080 - Low Voltage Switchyard - Unit 1	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. Each outdoor deluge system provides local protection for individual transformers, and are designed (using curbs, etc.) so water will remain in the vicinity of the affected equipment. Therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-080 - Low Voltage Switchyard - Unit 1	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	
Revision	Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-080 - Low Voltage Switchyard - Unit 1	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Water Suppression	1TR-64	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1TR-66	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1TR-67	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1TR-68	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1TR-69	EEEE/LA	Required to support a fire boundary evaluation.
Passive	Combustibles and flammable liquid control	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Curbs	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Curbs	EEEE/LA	Required to support an engineering evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-080 - Low Voltage Switchyard - Unit 1	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-081-U1	Turbine Building Battery Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By Risk Criteria	Comments
Modifications			Modification to provide fuse or other electrical isolation device at the DC shunt connection point.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


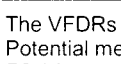
Fire Area ID:	1-081-U1 - Turbine Building Battery Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-081-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification to provide fuse or other electrical isolation device at the DC shunt connection point, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-081-SEP-001	
VFDR	N1B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 1C DISTRIBUTION PANEL; N1B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 1D DISTRIBUTION PANEL; N1B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 1E DISTRIBUTION PANEL - In order to prevent uncontrolled RCS pressurization the Pressurizer Heaters must be tripped. A loss of control power to 125V DC Distribution panel 1G and 1H could prevent remote tripping of Pressurizer Group 1C, 1D (powered from 1G) and 1E (powered from 1H). Panel 1G fails due to fire induced circuit failure to Bus 1K(N1R41L0502) and Battery 1D (N1R42B0505B) while panel 1H fails due to fire induced circuit failure to panel 1J (N1R41L0501) and Battery 1C (N1R42B0505A). A failure to prevent RCS Pressure transients challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-081-SEP-002	
VFDR	Q1B41P0001A:ON:OFF, RCP 1A - In order to support the natural circulation cool down process, the Reactor Coolant Pumps must be tripped. A loss of control power to 125V DC Distribution panel 1G, due to fire induced circuit failure to Bus 1K (N1R42L0502) and Battery 1D (N1R42B0505B) would prevent remote tripping of Reactor Coolant Pump 1A. This failure challenges the RCS Inventory Control/Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-081-SEP-003	
VFDR	Q1B41P0001B:ON:OFF, RCP 1B - In order to support the natural circulation cool down process, the Reactor Coolant Pumps must be tripped. A loss of control power to 125V DC Distribution panel 1H, due to fire induced circuit failure to Bus 1J(N1R41L0501) and Battery 1C (N1R42B0505A) would prevent remote tripping of Reactor Coolant Pump 1B. This failure challenges the RCS Inventory Control/Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U1 - Turbine Building Battery Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-081-SEP-004	
VFDR	Q1B41P0001C:ON:OFF, RCP 1C - In order to support the natural circulation cool down process, the Reactor Coolant Pumps must be tripped. A loss of control power to 125V DC Distribution panel 1G, due to fire induced circuit failure to Bus 1K (N1R41L0502) and Battery 1D (N1R42B0505B) would prevent remote tripping of Reactor Coolant Pump 1C. This failure challenges the RCS Inventory Control/Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-081-U2	Turbine Building Battery Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


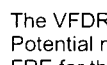
Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1T-4	DID Criteria	Required to meet DID criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-081-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-081-U2 - Turbine Building Battery Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-081-SEP-001	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - Pressurizer Heater Group 2E must remain off in order to maintain an appropriate Pressurizer Level and pressure. Failure to trip the pressurizer heater group due to a loss of DC control power will challenge the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-082 - Turbine Building Lube Oil Storage Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-082	Lube Oil Storage Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-082 - Turbine Building Lube Oil Storage Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-082 - Turbine Building Lube Oil Storage Room NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-082 - Turbine Building Lube Oil Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Drainage capacity in the general Turbine Building area exceeds expected fire suppression flows. Local hazards protected by sprinkler or water spray systems have sufficient curbing and discharge of manual suppression water in adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-082 - Turbine Building Lube Oil Storage Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-082 - Turbine Building Lube Oil Storage Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-083 - Turbine Building Oil Storage Room		Fire Area Definition
Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		
Fire Zone ID	Description	
1-083	Oil Storage Room	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-083 - Turbine Building Oil Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-083 - Turbine Building Oil Storage Room NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<p>Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.</p>	
7.3 Vital Auxiliaries Component Cooling Water	<p>Train A/Train B component cooling water is provided with non-essential loads isolated.</p>	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-083 - Turbine Building Oil Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Drainage capacity in the general Turbine Building area exceeds expected fire suppression flows. Local hazards protected by sprinkler or water spray systems have sufficient curbing and discharge of manual suppression water in adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-083 - Turbine Building Oil Storage Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-083 - Turbine Building Oil Storage Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-086 - Turbine Building Auxiliary Steam Generator	Fire Area Definition
Compliance Basis:		NFPA 805, Section 4.2.3 Deterministic Approach	
<hr/>			
Fire Zone ID	Description		
1-086	Auxiliary Steam Generator		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-086 - Turbine Building Auxiliary Steam Generator	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-086 - Turbine Building Auxiliary Steam Generator NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-086 - Turbine Building Auxiliary Steam Generator	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Drainage capacity in the general Turbine Building area exceeds expected fire suppression flows. Local hazards protected by sprinkler or water spray systems have sufficient curbing and discharge of manual suppression water in adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-086 - Turbine Building Auxiliary Steam Generator	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title N/A

Summary This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0107	107 Combustible Storage/Filter Unit Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-132	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1A-132	EEEE/LA	Required to support a fire boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-090 - Aux Building Combustible Storage & Filter Unit Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-092 - Drumming Station & Storage & Combustible Storage Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0420	420 Drum Storage/Combustible Storage Room
0421	421 Drumming Station/Combustible Storage Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-092 - Drumming Station & Storage & Combustible Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-092 - Drumming Station & Storage & Combustible Storage Room NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-092 - Drumming Station & Storage & Combustible Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-092 - Drumming Station & Storage & Combustible Storage Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-092 - Drumming Station & Storage & Combustible Storage Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0167	167 Combustible Storage Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump aligned to Train A / Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A/Train B MDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	



Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-27	DID Criteria	Required to meet DID criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-094	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-094 - Aux Building Combustible Storage Room	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-094-SEP-001	
VFDR	Q1N12HV3226:CLOSED:CLOSED, TDAFWP TURBINE STEAM SUPPLY ISOLATION - Closure of the MSIVs and steam supply lines to the TDAFWP are required to avoid uncontrolled RCS depressurization. Fire induced cable damage to the control circuit of the TDAFWP supply isolation valve could spuriously open the valve allowing steam to be supplied to the turbine. Failure of this valve challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-095 - Aux Building Storage Room	Fire Area Definition
Compliance Basis:		NFPA 805, Section 4.2.3 Deterministic Approach	
Fire Zone ID	Description		
0171	171 Storage Room/Combustible Storage Room		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-095 - Aux Building Storage Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-095 - Aux Building Storage Room NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<p>Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.</p>	
7.3 Vital Auxiliaries Component Cooling Water	<p>Train A/Train B component cooling water is provided with non-essential loads isolated.</p>	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-095 - Aux Building Storage Room
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach

Performance Goals

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-095 - Aux Building Storage Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-095 - Aux Building Storage Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-118	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1A-118	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-095 - Aux Building Storage Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title N/A

Summary This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-096 - Aux Building Combustible Storage Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0179	179 Combustible Storage Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-096 - Aux Building Combustible Storage Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-096 - Aux Building Combustible Storage Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-096 - Aux Building Combustible Storage Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-096 - Aux Building Combustible Storage Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-096 - Aux Building Combustible Storage Room		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-118	EEEE/LA	Required to support a fire boundary evaluation.
Water Suppression	1A-118	EEEE/LA	Required to support a fire boundary evaluation.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-096 - Aux Building Combustible Storage Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title N/A

Summary This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-097 - Filter Hatch Room & Combustible Storage Area	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0404	404 Filter Hatch Room/Combustible Storage Area

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-097 - Filter Hatch Room & Combustible Storage Area Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-097 - Filter Hatch Room & Combustible Storage Area NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-097 - Filter Hatch Room & Combustible Storage Area	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-097 - Filter Hatch Room & Combustible Storage Area	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-097 - Filter Hatch Room & Combustible Storage Area	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-098 - Caskwash Storage & Combustible Storage Area	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
0447	447 Caskwash Storage Area/Combustible Storage Area

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-098 - Caskwash Storage & Combustible Storage Area Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-098 - Caskwash Storage & Combustible Storage Area NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<p>Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.</p>	
7.3 Vital Auxiliaries Component Cooling Water	<p>Train A/Train B component cooling water is provided with non-essential loads isolated.</p>	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-098 - Caskwash Storage & Combustible Storage Area	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-098 - Caskwash Storage & Combustible Storage Area	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-098 - Caskwash Storage & Combustible Storage Area	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-DU-DGRWIS-A	Diesel Building to RWIS Ductbank, Unit 1, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach

Performance Goals

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-A - Diesel Building to RWIS Ductbank, Unit 1, Train A	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title N/A

Summary This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-DU-DGRWIS-B	Diesel Building to RWIS Ductbank, Unit 1, Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGRWIS-B - Diesel Building to RWIS Ductbank, Unit 1, Train B	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-DU-DGSWIS-A-U1	Diesel Building to SWIS Ductbank, Unit 1, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-DU-DGSWIS-A-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-DU-DGSWIS-A-IA-001	
VFDR	Q1B31V0061:OPEN/CLOSED:OPEN/CLOSED, PRESSURIZER PORV - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1B31V0061 - Pressurizer PORV. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-001	
VFDR	N1B21TI0410:AVAILABLE:AVAILABLE-HSP, RCS COLD LEG TEMPERATURE INDICATOR TI-410 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-002	
VFDR	N1B21TI0413:AVAILABLE:AVAILABLE-HSP, RCS HOT LEG TEMPERATURE INDICATOR TI-413 - N1B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-003	
VFDR	N1B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-004	
VFDR	N1B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-005	
VFDR	N1B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-006	
VFDR	N1B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N1B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N1B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-007	
VFDR	N1C55NI0031B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-008	
VFDR	N1C55NI0032B:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-009	
VFDR	Q1E11P0001A:OFF:ON/OFF, 1A RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump; Q1R43E0001A - Sequencer Bus 1F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-010	
VFDR	Q1E11P0001B:OFF:ON/OFF, 1B RHR/LHSI PUMP - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump; Q1R43E0001A - Sequencer Bus 1F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-013	
VFDR	Q1E21P0002A:STANDBY:ON/OFF, 1A CHARGING/HHSI PUMP - Q1E21P0002A- 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-014	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21P0002B:STANDBY:ON/OFF-TRAIN A, 1B CHARGING/HHSI PUMP - Q1E21P0002A- 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; an power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-015	
VFDR	Q1E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage may generate a SIAS to cause a failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-016	
VFDR	Q1E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q1E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced damage to cascading power supply to instruments cabinets (SIAS) may spuriously operate valve after battery depletion or after battery fails due to environmental concerns preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q1E21V0347 - Charging Flow Control Valve. The valve is normally throttled, required to throttle to maintain RCS inventory. Fire induced damage due to instrument air components and cascading power supply failure prevent ability to maintain reactivity and inventory control, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-019	
VFDR	Q1E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-020	
VFDR	Q1E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q1E21V0376A - VCT Outlet Isolation; Q1E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-021	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure and cascading power supplies prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-022	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure and cascading power supplies prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-023	
VFDR	Q1N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q1N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure and cascading power supplies prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-024	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q1N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-025	
VFDR	Q1N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q1N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-026	
VFDR	Q1N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q1N23HV3228A - TDAFW Supply to Steam Generator 1A. The valve is normally open, required to be throttled to control TDAFW to Steam Generator. Fire induced damage from instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-027	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q1N23HV3228B - TDAFW Supply to Steam Generator 1B. The valve is normally open, required to be throttled to control TDAFW to Steam Generator. Fire induced damage from instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-028	
VFDR	Q1N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q1N23HV3228C - TDAFW Supply to Steam Generator 1C. The valve is normally open, required to be throttled to control TDAFW to Steam Generator. Fire induced damage from instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-029	
VFDR	Q1R21L0001A:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1A - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-030	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R21L0001B:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 1B - N1C55NI0031B - Source Range Count Rate Indicator NI-31B and Q1R21L0001A - 120V Vital AC Instrument Panel 1A; N1C55NI0032B - Source Range Count Rate Indicator NI-32B and Q1R21L0001B - 120V Vital AC Instrument Panel 1B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-031	
VFDR	Q1R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 1B - Q1E21P0002A- 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-032	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E21P0002A- 1A Charging/HHSI Pump; Q1E21P0002B - 1B Charging/HHSI Pump; Q1R41L0001B - 125Vdc Distribution Panel 1B; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available; power supply normally energized, required energized, all required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGSWIS-A-SEP-033	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E11P0001A - 1A RHR/LPSI Pump; Q1E11P0001B - 1B RHR/LPSI Pump; Q1R43E0001A - Sequencer Bus 1F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-DU-DGSWIS-A-U2	Diesel Building to SWIS Ductbank, Unit 1, Train A

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


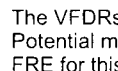
Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A		Required Fire Protection Systems and Features
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-DU-DGSWIS-A-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-DU-DGSWIS-A-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-1-DU-DGSWIS-A-HVAC-002	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 2F - This component, Switchgear 2F, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-DU-DGSWIS-A-HVAC-003	
VFDR	Q2R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2A - This component, MCC 2A, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-1-DU-DGSWIS-A-HVAC-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-A-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train A	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R42E0002A:AVAILABLE:AVAILABLE, 125V BATTERY 2A - This component, Train A Battery, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-DU-DGSWIS-B-U1	Diesel Building to SWIS Ductbank, Unit 1, Train B

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


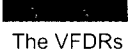
Fire Area ID:	1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B		Required Fire Protection Systems and Features
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-DU-DGSWIS-B-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U1 - Diesel Building to SWIS Ductbank, Unit 1, Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-DU-DGSWIS-B-HVAC-001	
VFDR	Q1R15A0007:ENERGIZED:ENERGIZED-EDG1B, 4160V SWITCHGEAR BUS 1G - This component, Switchgear 1G (600V Load Center E Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-DU-DGSWIS-B-HVAC-002	
VFDR	Q1R42B0001B:ENERGIZED:ENERGIZED-BC1B, 125V DC BUS 1B - This component, 125V DC Bus 1B, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-DU-DGSWIS-B-HVAC-003	
VFDR	Q1R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 1B - This component, Battery 1B (Train B Battery Room Exhaust Fan), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-DU-DGSWIS-B-U2	Diesel Building to SWIS Ductbank, Unit 1, Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Performance Goals
1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAPW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria


Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-DU-DGSWIS-B-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGSWIS-B-U2 - Diesel Building to SWIS Ductbank, Unit 1, Train B	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-DU-DGSWIS-B-SEP-001	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Recirculation to the pond is the credited lineup for Service Water. Valve Q2P16V0539 must open in order to establish recirculation. Fire induced control circuit damage could render the component inoperable or result in spurious closure of the valve. Failure to ensure availability of this valve challenges the establishment of Service Water and Train B Power. This failure challenges service water support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-DU-DGVB-A	Diesel Building to Valve Box Ductbanks, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation-valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Performance-based approach Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or performance-based approach Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria


Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-DU-DGVB-A	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-A - Diesel Building to Valve Box Ductbanks, Train A	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-DU-DGVB-A-SEP-001	
VFDR	Q1P16V0539:CLOSED:OPEN, TRAIN A SW EMERGENCY RECIRC TO POND - The pond is the credited source of recirculation for Service Water. It is therefore desired, that valve Q1P16V0539 (SW Emergence Recirculation to Pond) open in order to establish a recirculation lineup. Fire induced control circuit damage could render to component inoperable from the control and/or result in spurious operation. Failure to establish recirculation to the pond challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGVB-A-SEP-002	
VFDR	Q1P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - The pond is the credited source of recirculation for Service Water. The River supply is not credited, and thus, must be isolated. However, before the Pond lineup is established, the SW Discharge Valve (Q1P16V0546) must remain open. It is then desired that the valve close in order to maintain an adequate pond recirculation lineup. Fire induced damage to the control circuit of this valve may result in a loss of control room ability to operate the valve and/or spurious operation. This failure prevents the establishment of Service water discharge to the pond, and poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-DU-DGVB-B	Diesel Building to Valve Box Ductbanks, Train B

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> • Unit 1: Performance-based approach Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or performance-based approach Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. • Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria


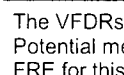
Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-DU-DGVB-B	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-DU-DGVB-B - Diesel Building to Valve Box Ductbanks, Train B	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-DU-DGVB-B-SEP-001	
VFDR	Q1P16V0538:CLOSED:OPEN, TRAIN B SW EMERGENCY RECIRC TO POND - Fire damage to the control circuit of this valve could prevent the establishment of Train B Service Water pond recirculation. This poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-DU-DGVB-B-SEP-002	
VFDR	Q1P16V0545:OPEN:OPEN/CLOSED, TRAIN B SW DISCHARGE TO RIVER - Fire damage to the control circuit of this valve could prevent the establishment of Train B Service Water Discharge to the river. This poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		1-EMBED-AB - Aux Building Embedded Conduit	Fire Area Definition
Compliance Basis:		NFPA 805, Section 4.2.3 Deterministic Approach	
<hr/>			
Fire Zone ID	Description		
1-EMBED-AB	Embedded Conduit, Auxiliary Building, Unit 1		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-EMBED-AB - Aux Building Embedded Conduit Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-EMBED-AB - Aux Building Embedded Conduit NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-EMBED-AB - Aux Building Embedded Conduit	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained in this area due to embedded conduits. Cables in embedded conduits are protected from adverse conditions occurring due to fire suppression effects. Therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-EMBED-AB - Aux Building Embedded Conduit	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-S01	Stairwell No. 1

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	ENGDOC, SM-97-1561-001	Fire Barrier Penetration Seal Limiting Design Parameter Evaluation
Revision	1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

- Elements with construction features equal to 3-hr boundaries were credited as such,
- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.


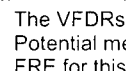
Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-51	EEEE/LA	Required to support a fire boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-S01	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S01 - Stairwell No. 1	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-S01-SEP-001	
VFDR	Q1N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The main, steam atmospheric relief valves are initially required closed in order to prevent uncontrolled Steam Generator De-pressurization. Fire induced cable damage to the MSARV control circuit 3371A, may result in spurious opening of the valve, and could result in rapid Steam Generator De-Pressurization . This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-S01-SEP-002	
VFDR	Q1N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The main, steam atmospheric relief valves are initially required closed in order to prevent uncontrolled Steam Generator De-pressurization. Fire induced cable damage to the MSARV control circuit 3371B, may result in spurious opening of the valve, and could result in rapid Steam Generator De-Pressurization . This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-S01-SEP-003	
VFDR	Q1N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Decay Heat Removal via SG 1B is desired in this fire area. The main, steam atmospheric relief valves are required to modulate in order to provide steam relief to the atmosphere. Fire induced cable damage to the MSARV control circuit 3371B associated with SG 1B, may result in spurious closure of the valve, thus isolating the secondary side, or spurious full opening of the valve leading to an uncontrolled SG de-pressurization condition . This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	1-S01 - Stairwell No. 1	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-S01-SEP-004	
VFDR	Q1N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The main, steam atmospheric relief valves are initially required closed in order to prevent uncontrolled Steam Generator De-pressurization. Fire induced cable damage to the MSARV control circuit 3371C, may result in spurious opening of the valve, and could result in rapid Steam Generator De-Pressurization . This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-S02	Stairwell No. 2

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> • Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power. • Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> • Unit 1: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. • Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 1: Normal letdown is isolated using orifice isolation, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. • Unit 2: Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> • Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. • Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 1: Positive control of RCS pressure is accomplished with Train A PORV for pressure reduction and Pressurizer Heater Group A/B for pressure increase. Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> • Unit 1: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. • Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> • Unit 1: Train A component cooling water is provided with non-essential loads isolated. • Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> • Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. • Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C


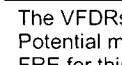
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1A-108	EEEE/LA	Required to support a fire boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.
Passive	Three Hour Rated Enclosure	Risk Criteria	Required to meet the risk criteria.
Passive	Three Hour Rated Enclosure	Separation	Required to support the NSCA.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-S02	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the Existing Promat H board for cable protection, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S02 - Stairwell No. 2	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-S02-HVAC-001	
VFDR	Q1R15A0006:ENERGIZED:ENERGIZED-SUT1A, 4160V SWITCHGEAR BUS 1F - This component, Switchgear 1F (600V Load Center D Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-S02-SEP-009	
VFDR	Q1N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Fire induced circuit failure to the cited control cable could result in spurious opening of the MSARV 3371A. Spurious opening of the MSARV could prevent atmospheric relief from being achieved on the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-S08	Stairwell No. 8

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-S08 - Stairwell No. 8 Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach

Performance Goals

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8	Required Fire Protection Systems and Features	
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S08 - Stairwell No. 8	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-S10	Stairwell No. 10

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using {Train A / Train B charging pump, swing charging pump via Train A/Train B power} aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


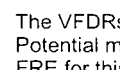
Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Passive	Restricted transient controls	EEEE/LA	Required to support a fire boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-S10	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-S10 - Stairwell No. 10	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-S10-SEP-001	
VFDR	Q1P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SOLENOID VALVE - Fire induced circuit failure to the sampling valve control circuits could spuriously open these valves. Failure to isolate the sampling lines could lead to a loss of RCS Inventory. Failure to isolate these lines challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-S10-SEP-002	
VFDR	Q1P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SOLENOID VALVE - Fire induced circuit failure to the sampling valve control circuits could spuriously open these valves. Failure to isolate the sampling lines could lead to a loss of RCS Inventory. Failure to isolate these lines challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-S10-SEP-003	
VFDR	Q1P15SV3765:CLOSED:OPEN/CLOSED, REACTOR COOLANT HOT LEG SOLENOID VALVE - Fire induced circuit failure to the sampling valve control circuits could spuriously open these valves. Failure to isolate the sampling lines could lead to a loss of RCS Inventory. Failure to isolate these lines challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB1-A	Service Water Valve Box, 1-SVB1, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train B component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Required Fire Protection Systems and Features	
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach		
<hr/>			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB1-A	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-A - Service Water Valve Box, 1-SVB1, Train A	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB1-A-HVAC-001	
VFDR	Q1R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 1F - This component, Switchgear 1F (600V Load Center D Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB1-A-HVAC-002	
VFDR	Q1R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1A - This component, MCC 1A, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB1-A-HVAC-003	
VFDR	Q1R42B0001A:ENERGIZED:ENERGIZED-BC1A, 125V DC BUS 1A - This component, 125V DC Bus 1A (Train A Battery Charger Inverter Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB1-B	Service Water Valve Box, 1-SVB1, Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train A component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


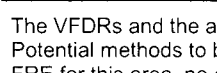
Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB1-B	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB1-B - Service Water Valve Box, 1-SVB1, Train B	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB1-B-HVAC-001	
VFDR	Q1R15A0007:ENERGIZED:ENERGIZED-EDG1B, 4160V SWITCHGEAR BUS 1G - This component, Switchgear 1G (600V Load Center E Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB1-B-HVAC-002	
VFDR	Q1R17B0002:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1B - This component, MCC 1B (MCC 1B Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB1-B-HVAC-003	
VFDR	Q1R42B0001B:ENERGIZED:ENERGIZED-BC1B, 125V DC BUS 1B - This component, 125V DC Bus 1B (Train B Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB2-A	Service Water Valve Box, 1-SVB2, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train B component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Required Fire Protection Systems and Features	
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach		
<hr/>			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB2-A	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-A - Service Water Valve Box, 1-SVB2, Train A	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB2-A-HVAC-001	
VFDR	Q1R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 1F - This component, Switchgear 1F (600V Load Center D Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB2-A-HVAC-002	
VFDR	Q1R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1A - This component, MCC 1A (MCC 1A Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB2-A-HVAC-003	
VFDR	Q1R42B0001A:ENERGIZED:ENERGIZED-BC1A, 125V DC BUS 1A - This component, 125V DC Bus 1A (Train A Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB2-B	Service Water Valve Box, 1-SVB2, Train B

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train A component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	


Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB2-B	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB2-B - Service Water Valve Box, 1-SVB2, Train B	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB2-B-HVAC-001	
VFDR	Q1R15A0007:ENERGIZED:ENERGIZED-EDG1B, 4160V SWITCHGEAR BUS 1G - This component, Switchgear 1G (600V Load Center E Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB2-B-HVAC-002	
VFDR	Q1R42B0001B:ENERGIZED:ENERGIZED-BC1B, 125V DC BUS 1B - This component, 125V DC Bus 1B (Train B Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-SVB2-B-HVAC-003	
VFDR	Q1R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 1B - This component, Battery 1B (Train B Battery Room Exh Fan), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB3-A	Service Water Valve Box, 1-SVB3, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> • Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. • Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-A - Service Water Valve Box, 1-SVB3, Train A	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DID Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB3-B	Service Water Valve Box, 1-SVB3, Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
6 Process Monitoring	<ul style="list-style-type: none"> • Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. • Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach

Performance Goals

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB3-B - Service Water Valve Box, 1-SVB3, Train B	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB4-A	Service Water Valve Box, 1-SVB4, Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train B component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


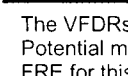
Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB4-A	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-A - Service Water Valve Box, 1-SVB4, Train A	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB4-A-HVAC-001	
VFDR	Q1R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 1F - This component, Switchgear 1F (600V Load Center D Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB4-A-HVAC-002	
VFDR	Q1R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1A - This component, MCC 1A (MCC 1A Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB4-A-HVAC-003	
VFDR	Q1R42B0001A:ENERGIZED:ENERGIZED-BC1A, 125V DC BUS 1A - This component, 125V DC Bus 1A (Train A Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
1-SVB4-B	Service Water Valve Box, 1-SVB4, Train B

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power. Unit 2: Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 1: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 2: RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump or TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries – Service Water	<ul style="list-style-type: none"> Unit 1: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 2: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries – Component Cooling Water	<ul style="list-style-type: none"> Unit 1: Train A component cooling water is provided with non-essential loads isolated. Unit 2: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries – HVAC	<ul style="list-style-type: none"> Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. No automatic suppression is installed in this area. Discharge of manual suppression water to adjacent compartments is controlled and watertight barriers exist between divisions; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


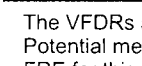
Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Required Fire Protection Systems and Features	
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 1-SVB4-B	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-SVB4-B - Service Water Valve Box, 1-SVB4, Train B	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-1-SVB4-B-HVAC-001	
VFDR	Q1R15A0007:ENERGIZED:ENERGIZED-SUT-1B, 4160V SWITCHGEAR BUS 1G - This component, Switchgear 1G, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to Vital Auxiliaries Electrical Support Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-1-SVB4-B-HVAC-002	
VFDR	Q1R42B0001B:ENERGIZED:ENERGIZED-BC1B, 125V DC BUS 1B - This component, 125V DC Bus 1B (Train B Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U1-1-SVB4-B-HVAC-003	
VFDR	Q1R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 1B - This component, Battery 1B (Train B Battery Room Exhaust Fan), requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-084-U1	Turbine, SGFP, and Hw Seal Oil Conditioners & Reservoirs
1-085-U1	Turbine Building, General Area
1-087-U1	Steam Generator Feed Pumps A & B
1-088-U1	Turbine Building Switchgear Area

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-TB-U1 - Turbine Building General Area Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump aligned to Train A / Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal charging using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the performance-based approach Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 1A/1B/1C. Performance-based approach main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Drainage capacity in the general Turbine Building area exceeds expected fire suppression flows. Local hazards protected by sprinkler or water spray systems have sufficient curbing and discharge of manual suppression water in adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


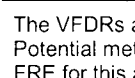
Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Gaseous Suppression	1T-13	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1T-13	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1T-14	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1T-14	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-10	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-12B	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-16C	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-16D	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-16E	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-17	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-18	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-2	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-20	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-3	DID Criteria	Required to meet DID criteria.
Water Suppression	1T-9	DID Criteria	Required to meet DID criteria.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-TB-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification to provide fuse or other electrical isolation device at the DC shunt connection point and the installed suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-TB-IA-001	
VFDR	Q1E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-IA-002	
VFDR	Q1E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. An inability to modulate this valve due to a loss of instrument air would prevent de-pressurization of the RCS system to accommodate RCS transients. Failure to ensure cycling capability of this valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-IA-003	
VFDR	Q1E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-TB-IA-004	
VFDR	Q1E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure the throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-IA-005	
VFDR	Q1N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 1A ARV due to a loss of instrument air would cause the valve to fail closed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-SEP-001	
VFDR	N1N21P0001A:ON/STANDBY:OFF, CONDENSATE PUMP 1A - Decay Heat Removal via Auxiliary Feed water is credited, therefore all Main Feed water supplies need to be isolated. The Condensate Pumps supply feed water to the Main Feed pumps, which are not credited for cool down. Fire induced circuit failures could cause spurious operation of all condensate pumps for a fire in the turbine building. A loss of control power would also prevent remote tripping of the condensate pumps. Failure to secure the condensate feed challenges the Decay Heat Removal Nuclear Safety Performance Goal. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-1-TB-SEP-002	
VFDR	Q1B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 1A DISTRIBUTION PANEL - A loss of control power to the pressurizer heaters would prevent the ability to trip the pressurizer heaters. Spurious heater operation could impact the fluid conditions within the pressurizer. If specific pressure conditions cannot be maintained, then the ability to de-pressurize is compromised. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-SEP-003	
VFDR	Q1B41P0001A:ON/OFF, RCP 1A - In order to achieve and maintain a natural circulation cool down, the Reactor Coolant Pumps must be tripped. A loss of control power to RCP 1A would prevent the Pump from being tripped from the control room. Failure to trip the RCP challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-SEP-004	
VFDR	Q1B41P0001B:ON/OFF, RCP 1B - In order to achieve and maintain a natural circulation cool down, the Reactor Coolant Pumps must be tripped. A loss of control power to RCP 1B would prevent the Pump from being tripped from the control room. Failure to trip the RCP challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-1-TB-SEP-005	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U1 - Turbine Building General Area	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1B41P0001C:ON:OFF, RCP 1C - In order to achieve and maintain a natural circulation cool down, the Reactor Coolant Pumps must be tripped. A loss of control power to RCP 1C would prevent the Pump from being tripped from the control room. Failure to trip the RCP challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U2 - Turbine Building General Area	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
1-084-U2	Turbine, SGFP, and Hw Seal Oil Conditioners & Reservoirs
1-085-U2	Turbine Building, General Area
1-087-U2	Steam Generator Feed Pumps A & B
1-088-U2	Turbine Building Switchgear Area

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-TB-U2 - Turbine Building General Area Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by preventing boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump, or swing charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 1-TB-U2 - Turbine Building General Area Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries Electrical	1. Electrical power is supplied by diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Drainage capacity in the general Turbine Building area exceeds expected fire suppression flows. Local hazards protected by sprinkler or water spray systems have sufficient curbing and discharge of manual suppression water in adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U2 - Turbine Building General Area	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	


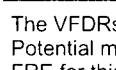
Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U2 - Turbine Building General Area	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	1T-13	DID Criteria	Required to meet DID criteria.
Detection	1T-16A	DID Criteria	Required to meet DID criteria.
Detection	1T-16B	DID Criteria	Required to meet DID criteria.
Detection	1T-16C	DID Criteria	Required to meet DID criteria.
Detection	1T-16D	DID Criteria	Required to meet DID criteria.
Detection	1T-16E	DID Criteria	Required to meet DID criteria.
Detection	1T-17	DID Criteria	Required to meet DID criteria.
Detection	1T-20	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	1T-13	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	1T-14	Risk Criteria	Required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U2 - Turbine Building General Area	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 1-TB-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	1-TB-U2 - Turbine Building General Area	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-1-TB-SEP-001	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - The Pressurizer Heaters are required off in order control RCS Pressure, and avoid overpressure transients. A loss of control power to DC Bus 1H would prevent remote tripping of Pressurizer Heater Group E. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2101	2101 Waste Gas Decay Tank Room
2102	2102 Valve Compartment Room
2103	2103 Corridor
2104	2104 Passageway to Unit 1
2105	2105 Catalytic H2 Recombiner 1A Room
2106	2106 Catalytic H2 Recombiner 1B Room
2108	2108 Waste Monitor Tank Room
2109	2109 Waste Monitor Tank Pump Room
2110	2110 Monitor Control Panel Room
2111	2111 Containment Spray Pump Room 1A
2112	2112 Access to Tendon Access Gallery
2113	2113 Valve Encapsulation
2114	2114 Pipe Chase
2115	2115 Hallway
2118	2118 Floor Drain Tank Room
2119	2119 Waste Holdup Tank Room
2120	2120 Corridor
2121	2121 Floor Drain Tank Pump Room
2122	2122 Waste Evaporator Feed Pump Room
2123	2123 Pipe Chase
2124	2124 Valve Encapsulation
2125	2125 Containment Spray Pump Room 1B
2126	2126 Pipe Chase
2127	2127 Pipe Chase
2128	2128 RHR Heat Exchanger Room
2129	2129 RHR Low Head Pump Room
2130	2130 Pipe Chase
2131	2131 RHR Low Head Pump Room
2169	2169 Duct and Pipe Chase
2183	2183 Tendon Access Gallery Entrance
2184	2184 Piping Penetration Room, El. 100'-0"
2196	2196 Access to Tendon Access Gallery
2223	2223 Piping Penetration Room, El. 121'-0"

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-001 - Aux Building Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by performance-based approach isolating the VCT to prevent boron dilution and by performance-based approach charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train B charging pump or swing charging pump aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> Unit 2: Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve. Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
	paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW or Train B MDAFW pump supplying Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-001 - Aux Building Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<p>monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.</p> <ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B. 2. Performance-based approach 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID Revision	ENGDOC, DOEJ-SM-03-0415-001 Applicability of NFPA 80 Door Closer Requirements	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This evaluation addresses a select number of fire doors that occasionally may not automatically latch closed due to "abnormal air pressure".</p> <p>Bases for Acceptability:</p> <p>The specific fire doors cited are PA101, 201 and 497. The evaluation justifies the door latching deviation by taking credit for plant staff that ensure all fire doors are closed after entry or egress.</p>	
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


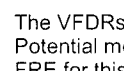
Fire Area ID:	2-001 - Aux Building	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-001 - Aux Building		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-100	Risk Criteria	Required to meet risk criteria.
Detection	2A-100	DID Criteria	Required to meet DID criteria.
Detection	2A-100 [2103, 2104, 2125 and 2183]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-100 [2103, 2104, 2125 and 2183]	Risk Criteria	Required to meet risk criteria.
Detection	2A-100 [2103, 2104, 2125 and 2183]	DID Criteria	Required to meet DID criteria.
Detection	2A-101	Risk Criteria	Required to meet risk criteria.
Detection	2A-101	DID Criteria	Required to meet DID criteria.
Detection	2A-102	Risk Criteria	Required to meet risk criteria.
Detection	2A-102	DID Criteria	Required to meet DID criteria.
Detection	2A-45	Risk Criteria	Required to meet risk criteria.
Detection	2A-45	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-45	DID Criteria	Required to meet DID criteria.
Passive	Plant staff Training	EEEE/LA	Plant Staff Training is required to address a door closure.
Passive	Restricted transient controls	EEEE/LA	Required to support fire area boundary evaluations.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001A, breakers LA13, LA20; Q2R42B0001B, breakers LB14.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-001	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions and the installed detection/suppression systems and modification(s), the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-001-ASSO-001	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2F - A fault on the impacted power cable coupled with a loss of control power to the associated load breaker could result in the credited Bus 2F supply breaker tripping. This would result in a loss of AC power to Switchgear 2F. This is an associated circuits common power supply issue and needs to be positioned accordingly. Failure to establish vital AC power challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-ASSO-002	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-SUT2B, 4160V SWITCHGEAR BUS 2G - A fault on the impacted power cable coupled with a loss of control power to the associated load breaker could result in the credited Bus 2G supply breaker tripping. This would result in a loss of AC power to Switchgear 2G. This is an associated circuits common power supply issue and needs to be positioned accordingly. Failure to establish vital AC power challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2C, 125V DC BUS 2A - This component, DC BUS 2A, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-HVAC-002	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R42E0001B:ENERGIZED:ENERGIZED, BATTERY CHARGER 2B - This component, Battery Charger 2B, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-HVAC-003	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2G - This component, Switchgear 2G, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-HVAC-004	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - This component, AFW Pump 2A, requires HVAC support to remain functional. The Auxiliary Feed water Pump is required to supply feed water to the Steam Generators in order to remove decay heat. A loss of the associated Pump Room Coolers due to fire induced circuit failure could prevent the availability of Pump 2A. Failure to ensure the availability of Pump 2A challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-001-HVAC-005	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, Battery 2B, requires HVAC support to remain functional. Failure to establish HVAC to support this electrical component will prevent the establishment of all Vital Power. This failure poses a challenge to HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-IA-001	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of instrument air will result in the valve failing in the closed position. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-IA-002	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-IA-003	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2A ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-001	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - Decay Heat removal via SG 2A is desired in this Fire Area. RCS Temperature Indication at the control room (or local control center) is required in order to remove decay heat through the steam generators. Fire induced circuit failure to TR0413 could prevent RCS Loop 1 Temperature indication from being available at the control room. These failures challenge the Decay Heat Removal Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-SEP-002	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - The Reactor Coolant pumps are required to remain off in order to maintain natural circulation cool down conditions. Spurious start of the Reactor Coolant Pump due to fire induced hot shorts could lead to an uncontrolled cool down rate. Failure to secure the Reactor Coolant Pumps challenge the RCS Inventory Control/Pressure Control Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-003	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E13PT0950:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL I - Fire induced circuit failure of PT950 could initiate a spurious CSAS signal, by initiating a loss of containment pressure signal. A spurious CSAS Signal could result in spurious start of the containment spray pumps, thus drawing suction from the RWST, and depleting its inventory. Alternatively the spurious signal could open the discharge path for the pump. A loss of RWST inventory challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-004	
VFDR	Q2E13PT0951:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL II - Fire induced circuit failure of PT951 could initiate a spurious CSAS and/or SIAS signal, by initiating a loss of containment pressure signal. A spurious CSAS Signal could result in spurious start of the containment spray pumps, thus drawing suction from the RWST, and depleting its inventory. Alternatively the spurious signal could open the discharge path for the pump. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path or loss of RWST inventory challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-005	
VFDR	Q2E13PT0952:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL III - Fire induced circuit failure of PT952 could initiate a spurious CSAS and/or SIAS signal, by initiating a loss of containment pressure signal. A spurious CSAS Signal could result in spurious start of the containment spray pumps, thus drawing suction from the RWST, and depleting its inventory. Alternatively the spurious signal could open the discharge path for the pump. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path or loss of RWST inventory challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-001-SEP-006	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. Fire induced circuit failure could result in this valve failing in the open position. Failure the throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-007	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. Both valves must remain open. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-008	
VFDR	Q2E21V0376B:OPEN:CLOSED, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must close in order to align charging suction to the RWST. Fire induced circuit failure to valve Q2E21V0376B could result in the valve failing to closed (it is directly in the fire area too). Failure to isolate the VCT would impact the credited charging lineup. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-009	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. Both valves must remain open. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-010	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371A (SG 2A) could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-011	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371B (SG 2B) could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-012	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371C (SG 2C) could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-013	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - The TDAFW Pump is not credited for use in this fire area. Fire induced circuit failure to HV3235B could result in the valve spurious opening, and thus spurious steam admission to the TDAFW Pump. Spurious start of the pump could result in an overcooling condition to the respective steam generator, and pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-014	
VFDR	Q2E21V0336A:CLOSED:OPEN, RWST TO CHARGING PUMP - Valve LCV-0115B provides suction to the charging pumps from the RWST. Fire induced cable damage that would prevent opening of the valve would pose a challenge to the RCS Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-015	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2A ARV due to fire induced circuit failure would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-001-SEP-016	
VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the RCS Sample Isolation Valves SV3333 or SV3765 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-SEP-017	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Gas Isolation Valves SV31043 or SV3331 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-001 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Liquid Isolation Valves SV3103 or SV3332 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-001-SEP-019	
VFDR	Q2E13PT0953:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL IV - Fire induced circuit failure of PT953 could initiate a spurious CSAS and/or SIAS signal, by initiating a loss of containment pressure signal. A spurious CSAS Signal could result in spurious start of the containment spray pumps, thus drawing suction from the RWST, and depleting its inventory. Alternatively the spurious signal could open the discharge path for the pump. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path or loss of RWST inventory challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2151-U1	2151 Waste Gas Decay Tank Rooms
2152-U1	2152 Valve Compartment Room
2153-U1	2153 Waste Gas Compressor Room
2154-U1	2154 Waste Evaporator Steam Generator Room
2154A-U1	2154A Valve Compartment Room
2155-U1	2155 Passageway to Unit 1
2156-U1	2156 Holdup Tank Room
2157-U1	2157 Holdup Tank Room
2158-U1	2158 Holdup Tank Room
2159-U1	2159 Recycle Evaporator Feed Pump Room
2160-U1	2160 Hatch Area
2161-U1	2161 Corridor
2162-U1	2162 Hallway
2163-U1	2163 WDS Control Panel Room
2164-U1	2164 Storage Room
2165-U1	2165 Waste Gas Decay Tank Room
2166-U1	2166 Waste Gas Decay Tank Room
2168-U1	2168 Chemical Drain Tank Room
2170-U1	2170 Letdown Heat Exchanger Room
2175-U1	2175 Hallway
2176-U1	2176 Secondary Spent-Resin Storage Tank Room
2177-U1	2177 Pump Room
2178-U1	2178 Filter Room
2180-U1	2180 Recycle Evaporator Steam Generator Room
2186-U1	2186 Boric Acid Area
2187-U1	2187 Hydro Test Pump Room
2188-U1	2188 Boric Acid Tank Area
2203-U1	2203 Waste Condenser Tanks and Pump Room
2204-U1	2204 Waste Evaporator Package Room
2205-U1	2205 Passageway to Unit 1
2206-U1	2206 Heat Exchanger Room
2207-U1	2207 Hatch Area
2208-U1	2208 Corridor
2209-U1	2209 Hallway

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2215-U1	2215 Duct and Pipe Chase
2216-U1	2216 Valve Compartments Area
2217-U1	2217 Volume Control Tank Room
2218-U1	2218 Chiller Unit Room
2219-U1	2219 Pipe Chase
2220-U1	2220 Valve Compartment Room
2221-U1	2221 Primary Spent-Resin Storage Tank Room
2222-U1	2222 Corridor
2230-U1	2230 Recycle Evaporator Package Room
2231-U1	2231 Sluice Pump Room
2232-U1	2232 Sluice Filter Room
2237-U1	2237 Corridor
2238-U1	2238 Cask Storage Area
2239-U1	2239 Transfer Canal
2240-U1	2240 Spent-Fuel Pool Room
2253-U1	2253 Valve Compartment
2301-U1	2301 Seal Water Filter Room
2302-U1	2302 Recycle Evaporator Feed Filter Room
2303-U1	2303 Reactor Coolant Filter Room
2304-U1	2304 Waste Monitor
2305-U1	2305 Seal Injection Filter Room
2306-U1	2306 Recycle Evaporator Feed Demineralizer Room
2307-U1	2307 Valve Compartment Room
2308-U1	2308 Waste Condensate and Monitor Tank Demineralizer Room
2309-U1	2309 Hatch Area
2310-U1	2310 Valve Compartment Room
2311-U1	2311 Recycle Evaporator Concentrates Filter Room
2312-U1	2312 Corridor
2313-U1	2313 Floor Drain and Laundry Tank Filter Room
2314-U1	2314 Waste Evaporator Feed Filter Room
2315-U1	2315 Recycle Waste Condenser Filter Room
2316-U1	2316 Passageway to Unit 1
2321-U1	2321 Sample Panel Room
2322-U1	2322 Hallway

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2323-U1	2323 Sample Room
2324-U1	2324 Primary Chemistry Lab
2325-U1	2325 Counting Room/Spectro-photometer Lab
2326-U1	2326 Clean Storage Room
2327-U1	2327 Valve Access Area
2328-U1	2328 BTR Demineralizer Room
2329-U1	2329 Pipe Tunnel
2330-U1	2330 Chiller Surge Tanks Pump Room
2331-U1	2331 Valve Access Area
2332-U1	2332 MCC 1A/2A Area
2340-U1	2340 Demineralizer Compartment
2341-U1	2341 Pipe Chase
2342-U1	2342 Spent-Fuel Pool Pump Room
2348-U1	2348 Cask Wash Area
2351-U1	2351 Chiller Pump and Surge Tank Room
2402-U1	2402 Passage to Unit 1
2403-U1	2403 Respirator Issue Room/Combustible Storage Room
2405-U1	2405 Hatch Room
2406-U1	2406 Tool Room
2408-U1	2408 Hallway
2409-U1	2409 Hallway
2410A-U1	2410A 600-V Load Center
2418-U1	2418 Auxiliary Building and Containment Purge Vent Equipment Room
2419-U1	2419 Demineralizer Hatch Area
2422-U1	2422 Corridor
2423-U1	2423 Valve Compartment
2424-U1	2424 Demineralizer Compartments
2425-U1	2425 Demineralizer Compartments
2426-U1	2426 Demineralizer Compartments
2427-U1	2427 Demineralizer Compartments
2429-U1	2429 Containment Purge Air Equipment Room
2431-U1	2431 Duct/Pipe Chase
2445-U1	2445 Spent-Fuel Pool Heat Exchanger Room
2446-U1	2446 Hallway

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2448-U1	2448 SFPC Pump Room
2449-U1	2449 Demineralizer Room
2450-U1	2450 Valve Compartment
2451-U1	2451 Filter Room
2467-U1	2467 SFP Heat Exchanger Room
2478-U1	2478 Motor Control Center Room
2504-U1	2504 Stair No. 6, Floor El. 184'-0"
2505-U1	2505 Spent-Fuel Pool Vent Equipment Room
2604-U1	2604 Passage
2605-U1	2605 Blowdown Pumps and Surge Tank Room
2606-U1	2606 Filter Room
2607-U1	2607 Filter Room
2608-U1	2608 Blowdown Heat Exchanger Room
2609-U1	2609 Storage Room
2610-U1	2610 Valve Compartment Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Performance-based approach Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Performance Goals
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Engineering Evaluations
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-101	Risk Criteria	Required to meet risk criteria.
Detection	2A-101 [2170, 2177]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-101 [2170, 2177]	Risk Criteria	Required to meet risk criteria.
Detection	2A-102 [2151, 2152, 2153, 2154, 2165, 2166]	Risk Criteria	Required to meet risk criteria
Detection	2A-103 [2188,2216,2217,2218,2220,2230,2231,2232,2237]	Risk Criteria	Required to support risk criteria.
Detection	2A-104 [2156, 2157,2158,2203,2204,2206,2253]	Risk Criteria	Required to meet risk criteria.
Detection	2A-105	Risk Criteria	Required to meet risk criteria.
Detection	2A-105 [2604]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-105 [2604]	Risk Criteria	Required to support risk criteria.
Detection	2A-107	Risk Criteria	Required to meet risk criteria.
Detection	2A-107 [2422]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-107 [2422]	Risk Criteria	Required to support risk criteria.
Detection	2A-108	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-108	Risk Criteria	Required to meet risk criteria.
Detection	2A-109 [2504,2505]	Risk Criteria	Required to meet risk criteria.
Detection	2A-112	Risk Criteria	Required to meet risk criteria.
Detection	2A-118	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-118	Risk Criteria	Required to support risk criteria.
Detection	2A-25	Risk Criteria	Required to meet risk criteria.
Detection	2A-25 [2155, 2160, 2161, 2162, 2163]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-25 [2155, 2160, 2161, 2162, 2163]	Risk Criteria	Required to meet risk criteria.
Detection	2A-35 [2205]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-35 [2207, 2209]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-35 [2207, 2209]	Risk Criteria	Required to support risk criteria.
Detection	2A-35 [2208, 2222]	Risk Criteria	Required to meet risk criteria.
Detection	2A-48	Risk Criteria	Required to meet risk criteria.
Detection	2A-48 [2309, 2312, 2316,2322]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-48 [2309, 2312, 2316,2322]	Risk Criteria	Required to support risk criteria.
Detection	2A-49 [2321,2323,2324,2325,2326]	Risk Criteria	Required to meet risk criteria.
Detection	2A-57	Risk Criteria	Required to meet risk criteria.



Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Required Fire Protection Systems and Features
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-57 [2408]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-57 [2408]	Risk Criteria	Required to meet risk criteria.
Detection	2A-75	Risk Criteria	Required to meet risk criteria.
Detection	2A-75 [2405,2406]	EEEE/LA	Required to support fire area boundary evaluations.
Detection	2A-75 [2405,2406]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-50	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-112	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-118	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-118	Risk Criteria	Required to support risk criteria.
Water Suppression	2A-25 [2155]	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-25 [2160, 2161, 2162,2163]	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-25 [2160, 2161, 2162,2163]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-35	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-35 [2207,2209]	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-35 [2207,2209]	Risk Criteria	Required to support risk criteria.
Water Suppression	2A-48	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-48 [2316,2322]	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-48 [2316,2322]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-57	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-75	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-75 [2405,2406]	EEEE/LA	Required to support fire area boundary evaluations.
Water Suppression	2A-75 [2405,2406]	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support fire area boundary evaluations.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	Fire Risk Evaluation
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-004-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification to seal MCCs and the installed detection and suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U1 - Aux Building	VFDRs
Compliance Basis:	Unit 1: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions. Unit 2: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U1-2-004-SEP-001	
VFDR	QSR17B0006:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1F - QSR17B0006 - Motor Control Center 1F. The MCC is normally energized, required energized to provide control room HVAC. Fire induced cable damage can disable MCC, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2151-U2	2151 Waste Gas Decay Tank Rooms
2152-U2	2152 Valve Compartment Room
2153-U2	2153 Waste Gas Compressor Room
2154-U2	2154 Waste Evaporator Steam Generator Room
2154A-U2	2154A Valve Compartment Room
2155-U2	2155 Passageway to Unit 1
2156-U2	2156 Holdup Tank Room
2157-U2	2157 Holdup Tank Room
2158-U2	2158 Holdup Tank Room
2159-U2	2159 Recycle Evaporator Feed Pump Room
2160-U2	2160 Hatch Area
2161-U2	2161 Corridor
2162-U2	2162 Hallway
2163-U2	2163 WDS Control Panel Room
2164-U2	2164 Storage Room
2165-U2	2165 Waste Gas Decay Tank Room
2166-U2	2166 Waste Gas Decay Tank Room
2168-U2	2168 Chemical Drain Tank Room
2170-U2	2170 Letdown Heat Exchanger Room
2175-U2	2175 Hallway
2176-U2	2176 Secondary Spent-Resin Storage Tank Room
2177-U2	2177 Pump Room
2178-U2	2178 Filter Room
2180-U2	2180 Recycle Evaporator Steam Generator Room
2186-U2	2186 Boric Acid Area
2187-U2	2187 Hydro Test Pump Room
2188-U2	2188 Boric Acid Tank Area
2203-U2	2203 Waste Condenser Tanks and Pump Room
2204-U2	2204 Waste Evaporator Package Room
2205-U2	2205 Passageway to Unit 1
2206-U2	2206 Heat Exchanger Room
2207-U2	2207 Hatch Area
2208-U2	2208 Corridor
2209-U2	2209 Hallway
2215-U2	2215 Duct and Pipe Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2216-U2	2216 Valve Compartments Area
2217-U2	2217 Volume Control Tank Room
2218-U2	2218 Chiller Unit Room
2219-U2	2219 Pipe Chase
2220-U2	2220 Valve Compartment Room
2221-U2	2221 Primary Spent-Resin Storage Tank Room
2222-U2	2222 Corridor
2230-U2	2230 Recycle Evaporator Package Room
2231-U2	2231 Sluice Pump Room
2232-U2	2232 Sluice Filter Room
2237-U2	2237 Corridor
2238-U2	2238 Cask Storage Area
2239-U2	2239 Transfer Canal
2240-U2	2240 Spent-Fuel Pool Room
2253-U2	2253 Valve Compartment
2301-U2	2301 Seal Water Filter Room
2302-U2	2302 Recycle Evaporator Feed Filter Room
2303-U2	2303 Reactor Coolant Filter Room
2304-U2	2304 Waste Monitor
2305-U2	2305 Seal Injection Filter Room
2306-U2	2306 Recycle Evaporator Feed Demineralizer Room
2307-U2	2307 Valve Compartment Room
2308-U2	2308 Waste Condensate and Monitor Tank Demineralizer Room
2309-U2	2309 Hatch Area
2310-U2	2310 Valve Compartment Room
2311-U2	2311 Recycle Evaporator Concentrates Filter Room
2312-U2	2312 Corridor
2313-U2	2313 Floor Drain and Laundry Tank Filter Room
2314-U2	2314 Waste Evaporator Feed Filter Room
2315-U2	2315 Recycle Waste Condenser Filter Room
2316-U2	2316 Passageway to Unit 1
2321-U2	2321 Sample Panel Room
2322-U2	2322 Hallway
2323-U2	2323 Sample Room
2324-U2	2324 Primary Chemistry Lab

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2325-U2	2325 Counting Room/Spectro-photometer Lab
2326-U2	2326 Clean Storage Room
2327-U2	2327 Valve Access Area
2328-U2	2328 BTR Demineralizer Room
2329-U2	2329 Pipe Tunnel
2330-U2	2330 Chiller Surge Tanks Pump Room
2331-U2	2331 Valve Access Area
2332-U2	2332 MCC 1A/2A Area
2340-U2	2340 Demineralizer Compartment
2341-U2	2341 Pipe Chase
2342-U2	2342 Spent-Fuel Pool Pump Room
2348-U2	2348 Cask Wash Area
2351-U2	2351 Chiller Pump and Surge Tank Room
2402-U2	2402 Passage to Unit 1
2403-U2	2403 Respirator Issue Room/Combustible Storage Room
2405-U2	2405 Hatch Room
2406-U2	2406 Tool Room
2408-U2	2408 Hallway
2409-U2	2409 Hallway
2410A-U2	2410A 600-V Load Center
2418-U2	2418 Auxiliary Building and Containment Purge Vent Equipment Room
2419-U2	2419 Demineralizer Hatch Area
2422-U2	2422 Corridor
2423-U2	2423 Valve Compartment
2424-U2	2424 Demineralizer Compartments
2425-U2	2425 Demineralizer Compartments
2426-U2	2426 Demineralizer Compartments
2427-U2	2427 Demineralizer Compartments
2429-U2	2429 Containment Purge Air Equipment Room
2431-U2	2431 Duct/Pipe Chase
2445-U2	2445 Spent-Fuel Pool Heat Exchanger Room
2446-U2	2446 Hallway
2448-U2	2448 SFPC Pump Room
2449-U2	2449 Demineralizer Room
2450-U2	2450 Valve Compartment

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2451-U2	2451 Filter Room
2467-U2	2467 SFP Heat Exchanger Room
2478-U2	2478 Motor Control Center Room
2504-U2	2504 Stair No. 6, Floor El. 184'-0"
2505-U2	2505 Spent-Fuel Pool Vent Equipment Room
2604-U2	2604 Passage
2605-U2	2605 Blowdown Pumps and Surge Tank Room
2606-U2	2606 Filter Room
2607-U2	2607 Filter Room
2608-U2	2608 Blowdown Heat Exchanger Room
2609-U2	2609 Storage Room
2610-U2	2610 Valve Compartment Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by performance-based approach isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using performance-based approach orifice isolation, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2B. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 2. 4. RCS Temperature - RCS Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Performance-based approach Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-101	Risk Criteria	Required to meet risk criteria.
Detection	2A-101	DID Criteria	Required to meet DID criteria.
Detection	2A-101 [2159, 2178, 2180, 2187]	Risk Criteria	Required to meet risk criteria.
Detection	2A-101 [2170,2177]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-101 [2170,2177]	Risk Criteria	Required to meet risk criteria.
Detection	2A-102 [2151, 2152, 2153, 2154, 2165, 2166]	Risk Criteria	Required to meet risk criteria.
Detection	2A-103 [2188,2216,2217,2218,2220,2230,2231,2232,2237]	Risk Criteria	Required to meet risk criteria.
Detection	2A-104 [2156, 2157, 2158,2203,2204,2206,2253]	Risk Criteria	Required to meet risk criteria.
Detection	2A-105 [2604]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-105 [2604]	Risk Criteria	Required to meet risk criteria.
Detection	2A-105 [All except 2604]	Risk Criteria	Required to meet risk criteria.
Detection	2A-107	Risk Criteria	Required to meet risk criteria.
Detection	2A-107 [2422]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-107 [2422]	Risk Criteria	Required to meet risk criteria.
Detection	2A-108	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-108	Risk Criteria	Required to meet risk criteria.
Detection	2A-109 [2504,2505]	Risk Criteria	Required to meet risk criteria.
Detection	2A-112 [Zone 2403]	Risk Criteria	Required to meet risk criteria.
Detection	2A-118	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-118	Risk Criteria	Required to meet risk criteria.
Detection	2A-25 [2154A, 2164, 2168]	Risk Criteria	Required to meet risk criteria.
Detection	2A-25 [2155]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-25 [2160, 2161]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-25 [2160, 2161]	Risk Criteria	Required to meet risk criteria.
Detection	2A-25 [2162,2163]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-25 [2162,2163]	Risk Criteria	Required to meet risk criteria.
Detection	2A-25 [2162,2163]	DID Criteria	Required to meet defense in depth criteria.
Detection	2A-35 [2205]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-35 [2207,2209,]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-35 [2207,2209,]	Risk Criteria	Required to meet risk criteria.
Detection	2A-35 [2208]	Risk Criteria	Required to meet risk criteria.
Detection	2A-35 [2222]	Risk Criteria	Required to meet risk criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-004-U2 - Aux Building		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-35 [2222]	DID Criteria	Required to meet risk criteria.
Detection	2A-48 [2309,2312,2316,2322]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-48 [2309,2312,2316,2322]	Risk Criteria	Required to meet risk criteria.
Detection	2A-48 [2330,2331,2342]	Risk Criteria	Required to meet risk criteria.
Detection	2A-48 [2332]	Risk Criteria	Required to meet risk criteria.
Detection	2A-48 [2332]	DID Criteria	Required to meet DID criteria.
Detection	2A-49 [2321,2323,2324,2325,2326]	Risk Criteria	Required to meet risk criteria.
Detection	2A-57	Risk Criteria	Required to meet risk criteria.
Detection	2A-57 [2408]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-57 [2408]	Risk Criteria	Required to meet risk criteria.
Detection	2A-75	Risk Criteria	Required to meet risk criteria.
Detection	2A-75	DID Criteria	Required to meet DID criteria.
Detection	2A-75 [2405,2406]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-75 [2405,2406]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-50 [Zone 2410A]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-112 [2403]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-118 [2175]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-118 [2175]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-25 [2155]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-25 [2160,2161]	EEEE/LA	Required to support a fire area boundary evaluation..
Water Suppression	2A-25 [2160,2161]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-25 [2162, 2163]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-25 [2162, 2163]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-25 [2162, 2163]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-35 [2207,2209.]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-35 [2207,2209.]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-35 [2208]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-35 [2222]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-35 [2222]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-48 [2312]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-48 [2316,2322]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-48 [2316,2322]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-57 [2402]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-75 [2405,2406]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-75 [2405,2406]	Risk Criteria	Required to meet risk criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-004-U2 - Aux Building		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Water Suppression	2A-75 [2419]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-75 [2419]	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	DID Criteria	Required to meet DID Criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	DID Criteria	Required to meet DID Criteria.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to seal MCCs 2C (N2R17B003) and 2DD (Q2R17B0099) and replace trip device in panel Q2R42B0001A, breakers LA08, LA13, LA20; Q2R42B0001B, breakers LB07, LB14.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


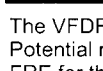
Fire Area ID:	2-004-U2 - Aux Building	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-004-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, modification(s), enhanced transient restrictions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, enhanced transient restrictions and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-004-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A (Train A Battery Charger Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-004-HVAC-002	
VFDR	Q2R42B0001B:ENERGIZED:ENERGIZED-BC2B, 125V DC BUS 2B - This component, 125V DC Bus 2B (Train B Battery Charger Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-004-HVAC-003	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - This component, MDAFW Pump 2A, requires HVAC support to remain functional. The motor driven feed water pumps are required to operate in order to supply high pressure feed water to the credited steam generator in order to remove decay heat. Failure to ensure availability of the MDAFW Pump 2A challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-HVAC-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-SUT2A, 4160V SWITCHGEAR BUS 2F - This component, Switchgear 2F (600V Load Center E Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-HVAC-005	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-EDG2B, 4160V SWITCHGEAR BUS 2G - This component, Switchgear 2G (600V Load Center E Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-HVAC-006	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - This component, Charging Pump 2A (Cooler 2A), requires HVAC support to remain functional. Charging via the CVCS system is required to maintain RCS Inventory. Charging via Pump 2A is sought after in this fire area. A loss of HVAC due to the Charging Pump Cooler Failure could render the charging pump 2A unavailable. Failure to establish charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-HVAC-007	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R42E0002A:AVAILABLE:AVAILABLE, 125V BATTERY 2A - This component, Battery 2A (Train A Battery Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-HVAC-008	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, Battery 2B (Train B Battery Room Cooler), requires HVAC support to remain functional. A loss of supporting HVAC to this electrical component will pose a challenge to various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-IA-001	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of instrument air will result in the valve failing in the closed position. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-IA-002	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. Fire induced circuit failure could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-IA-003	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2B ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-IA-004	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2A - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Feed water Flow via SG 2A needs to be isolated in this fire area, since it is not credited. This valve fails open on a loss of instrument air. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2A will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-IA-005	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Feed water Flow via SG 2C needs to be isolated in this fire area, since it is not credited. A loss of instrument air would result in this valve failing open. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2C will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.?	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-001	
VFDR	N2B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater 2C, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater 2C could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-002	
VFDR	N2B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater 2D, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater 2D could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-003	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater 2E, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater 2E could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-004	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2A. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-005	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2B. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-006	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2C. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-007	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (aligned to Train A) suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-008	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (aligned to Train B) suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-009	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. Both valves must remain open. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-010	
VFDR	Q2E21V0376B:OPEN:CLOSED, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must close in order to align charging suction to the RWST. Fire induced circuit failure to valve Q2E21V0376B could result in the valve failing to closed (it is directly in the fire area too). Failure to isolate the VCT would impact the credited charging lineup. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-011	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. Both valves must remain open. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-012	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0558:OPEN:OPEN, SW DILUTION BYPASS TRAIN A - The Service Water Dilution Bypass Line is required to maintain appropriate pressure conditions in order to permit an adequate service water flow to the various Plant buildings. Spurious closure of the Service Water Dilution Line Bypass MOV (Q2P16V0558) due to fire induced circuit failure could result in a change in line backpressure conditions, thereby resulting in an undesirable flow diversion condition. This failure poses a challenge to the Establishment of Service Water Train A, and all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-013	
VFDR	Q2E21LT0112:AVAILABLE:AVAILABLE, VCT LEVEL TRANSMITTER - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to VCT Level Instruments LT0112 and LT115 could result in a spurious VCT Low Level Signal. This would isolate the VCT Supply by closing the associated valves. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-014	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Control power is required to trip a non-credited charging pump. Failure to trip a non-credit pump could result in an overcharging condition. Fire induced circuit failure to Panel 2F could result in a loss of control power to Charging pumps 2B and 2C. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-015	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air will result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-016	
VFDR	Q2E21V0367:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Letdown isolation is necessary in order to maintain adequate pressurizer level and thus an adequate amount of RCS Inventory. Letdown isolation can be achieved by closing the letdown line isolation valves LCV0460 or LCV0459, or by closing all 3 Letdown Orifice Isolation Valves (8149A, B, C). Fire induced control circuit damage to the Letdown Orifice Isolation Valves (all 3) could result in the valves spuriously operating. A spurious letdown path could result in an inadequate amount of RCS Inventory. This failure challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-017	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - Source Range Instrumentation is required to monitor Reactivity Conditions. A loss of channel 1 and channel 2 Source Range Detectors could occur, due to fire induced circuit failures. Failure to monitor subcritical conditions challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2B ARV due to fire induced circuit failure or a loss of power to DC Panel 2C would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-019	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Feed water Flow via SG 2A needs to be isolated in this fire area, since it is not credited. Fire induced control circuit damage could result in valve HV3228A spuriously opening, thereby admitting feed water to SG2A via the TDAFW Pump. A loss of power at the TDAFW Pump UPS might also result in spurious opening of the valve. Furthermore, the TDAFW Pump could spuriously start due to its steam admission valves spuriously opening. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2A will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-020	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Feed water Flow via SG 2C needs to be isolated in this fire area, since it is not credited. Fire induced control circuit damage could result in valve HV3228C spuriously opening, thereby admitting feed water to SG1C via the TDAFW Pump. The valve could also fail due to a loss of power at the TDAFW Pump UPS. Furthermore, the TDAFW Pump could spuriously start due to its steam admission valves spuriously opening. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2C will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-021	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P11LI4132A:AVAILABLE:AVAILABLE, CONDENSATE STORAGE TANK LEVEL INDICATOR LI-4132A - The condensate storage tank is the credited source of suction for auxiliary feed water. CST level indication is therefore required to monitor CST Inventory levels at the control room, and permit operators to determine if adequate levels are available. Fire induced control circuit damage to the CST Level Indicators 4132A or 4132B could prevent this indication from being available. A loss of CST Level indication challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-022	
VFDR	Q2P15SV3333:CLOSED:OPEN/CLOSED, RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the RCS Sample Isolation Valves SV3333 or SV3765 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-SEP-023	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Gas Isolation Valves SV3104 or SV3331 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-SEP-024	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Liquid Isolation Valves SV3103 or SV3332 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-SEP-028	
VFDR	Q2P16V0539:CLOSED:OPEN, SW RECIRC TO POND TRAIN A - Service water recirculation to the pond is required in order to maintain adequate service water inventory. Fire induced circuit failure to valve Q2P16V0539 could result in spurious closure of the valve thereby isolating the makeup path. Additionally, a loss of power from MCC 2CC, would prevent opening of the valve remotely. These failures challenge the establishment of Service Water, and all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-029	
VFDR	Q2P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - Service water discharge to the river is not credit in the analysis, hence it must be isolated. Valves Q2P16V0546 and Q2P16V0549 must be closed in order to prevent service water discharge to the river. Fire induced circuit failure may result in spurious opening of valve V546, or failure to close once recirculation to the pond is established. Failure to establish recirculation to the pond challenges the establishment of Train A Service Water, and poses a challenge to all Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-004-SEP-030	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-004-U2 - Aux Building	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	QSV49K0002A:STANDBY:ON, CONTROL ROOM A/C CONDENSING UNIT 2A - Control Room HVAC is required to provide habitable conditions for operations to perform the necessary actions to achieve hot standby/hot shutdown from the control room. A loss of power from MCC 1F (cable feed) prevents the A/C Condensing unit 2A from being available. This failure challenges a critical vital auxiliary Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-004-SEP-031	
VFDR	QSV49K0001A:STANDBY:ON, CONTROL ROOM PACKAGE A/C BLOWER UNIT A - Control Room HVAC is required to provide habitable conditions for operations to perform the necessary actions to achieve hot standby/hot shutdown from the control room. A loss of power from MCC 1F (cable feed) prevents the A/C Blower unit from being available. This failure challenges a critical vital auxiliary Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2171	2171 Storage Room
2172	2172 Hallway
2173	2173 Charging/Safety Injection Pump Room
2174	2174 Charging/Safety Injection Pump Room
2181	2181 Charging/Safety Injection Pump Room
2182	2182 Contaminated Storage Area

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> • Unit 2: Subcritical conditions are maintained by performance-based approach isolating the VCT to prevent boron dilution and by charging borated water from the RWST using performance-based approach Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. • Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 2: Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve. • Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using performance-based approach Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach performance-based approach Train A/Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2A/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> • Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. • Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	<ul style="list-style-type: none"> • Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. • Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)


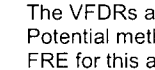
Fire Area ID:	2-005 - Aux Building	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		2-005 - Aux Building	Required Fire Protection Systems and Features	
Compliance Basis:		Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
		Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Detection	2A-101	EEEE/LA	Required to support a fire area boundary evaluation.	
Detection	2A-101	Risk Criteria	Required to meet risk criteria.	
Detection	2A-101 [2172, 2181]	EEEE/LA	Required to support a fire area boundary evaluation.	
Detection	2A-101 [2172, 2181]	Risk Criteria	Required to meet risk criteria.	
Detection	2A-101 [2172, 2181]	DID Criteria	Required to meet DID criteria.	
Detection	2A-101 [2182]	Risk Criteria	Required to meet risk criteria.	
Detection	2A-101 [2182]	DID Criteria	Required to meet DID criteria.	
Water Suppression	2A-101	EEEE/LA	Required to support a fire area boundary evaluation.	
Water Suppression	2A-101	DID Criteria	Required to meet DID criteria.	
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001A, breaker LA20.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-005	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the implementation of specified recovery actions, modification(s), and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied	
Δ CDF		
Δ LERF		
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-005-HVAC-001	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - This component, Charging Pump 2A, requires HVAC support to remain functional. Charging is required to support RCS Inventory Makeup. A loss of HVAC could potentially render the charging pump 2A unavailable for use. The associated 2A room cooler suffers fire induced circuit failure in this area, and cannot be relied upon to be available. Failure to establish charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-IA-001	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of instrument air will result in the valve failing in the closed position. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-IA-002	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air will result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-005-SEP-001	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2C. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-002	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Charging via the CVCS system is required to maintain RCS Inventory. The charging pumps are physically located in this area, hence one pump must remain available for use. Charging via Pump 2A is sought after in this fire area. Fire induced circuit failure could also prevent operation of the pump remotely. Failure to establish charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-004	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-005	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. Fire induced circuit failure to the outlet valves (V376A and V376B) could result in the valves spuriously closing and isolating the VCT before swap over can be established. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-006	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - The CVCS system is required to inject water into the Reactor Vessel upon a LOCA or SI signal. This path is not credited for normal charging, and therefore must be isolated. Fire induced circuit failure to valve 8803A resulting in the MOV spuriously opening could introduce a possible diversion path for charging. Failure to ensure this path remains isolated challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-007	
VFDR	Q2E21V0016B:CLOSED:CLOSED-TRAIN B, HHSI TO RCS COLD LEG ISOLATION - The CVCS system is required to inject water into the Reactor Vessel upon a LOCA or SI signal. This path is not credited for normal charging, and therefore must be isolated. Fire induced circuit failure to valve 8803B resulting in the MOV spuriously opening could introduce a possible diversion path for charging. Failure to ensure this path remains isolated challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-008	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-005 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Throttling capability of this valve is necessary to control RCS Makeup Inventory from the CVCS System. Fire induced circuit failure could result in the valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-009	
VFDR	Q2E21V0376A:OPEN:CLOSED, VCT OUTLET ISOLATION - The Volume Control Tank Outlet Isolation valves must close in order to align charging suction to the RWST. Fire induced circuit failure to both valves Q2E21V0376B or Q2E21V0376A could result in the valves failing to close, and since they are in series, prevent VCT isolation. Failure to isolate the VCT would impact the credited charging lineup. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-005-SEP-010	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2A ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2185	2185 Component Cooling Water Heat Exchanger Room
2189	2189 Plant Heating Equipment Room
2190	2190 Motor Control Center 2E Room
2191	2191 Auxiliary Feedwater Pump Room
2192	2192 Auxiliary Feedwater Pump Room
2193	2193 Auxiliary Feedwater Pump Room
2194	2194 Equipment Room
2195	2195 Access Hatch Room
2199	2199 Phosphate Tank and Pump Area
2236	2236 Duct Chase
2241	2241 Main Steam and Feed-water Valve Room
2242	2242 Pipe Chase
2243	2243 Pipe Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> • Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump. • Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> • Unit 2: RCS inventory is controlled using Train A charging pump aligned to the RWST. • Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 2: Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve. • Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> • Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. • Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using performance-based approach Train A MDAFW, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 2. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Performance-based-approach Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train A component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	<ul style="list-style-type: none"> Unit 2: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Required Fire Protection Systems and Features	
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-102	Risk Criteria	Required to meet risk criteria.
Detection	2A-102 [2192]	Risk Criteria	Required to meet risk criteria.
Detection	2A-102 [2192]	DID Criteria	Required to meet DID criteria.
Detection	2A-102 [2193]	Risk Criteria	Required to meet risk criteria.
Detection	2A-106	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-106	Risk Criteria	Required to meet risk criteria.
Detection	2A-119	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-119	Risk Criteria	Required to meet risk criteria.
Detection	2A-27	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-27	Risk Criteria	Required to meet risk criteria.
Detection	2A-62	Risk Criteria	Required to meet risk criteria.
Detection	2A-62 [2190]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-62 [2190]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-27	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-27	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-62	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-62 [2190]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-62 [2190]	Risk Criteria	Required to meet risk criteria.
Passive	Curbs	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001A, breaker LA20.
Modifications		DID Criteria	Modification required to plumb air from emergency air compressor header to AFW flow control valve

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-006	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s) and installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	6.16E-08	
Δ LERF	1.06E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the modification required to plumb air from emergency air compressor header to AFW flow control valve and the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-006-HVAC-001	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - This component, AFW Pump 2A/2B, requires HVAC support to remain functional. The Auxiliary Feed water Pump is required to supply feed water to the Steam Generators in order to remove decay heat. Furthermore, a loss of the associated Pump Room Coolers due to fire induced circuit failure could prevent the availability of Pump 2A or 2B. Failure to ensure the availability of Pump 2A or 2B challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-006-IA-003	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air will result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-IA-005	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2A ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-006-IA-006	
VFDR	Q2N23HV3227A:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 1A - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. In order to achieve a controlled cool-down rate, the ability to control Feed water Flow along the AFW Discharge path is necessary. The MDAFW Flow Control Valve HV3227A is throttled in order to control Feed water Flow. A loss of instrument air could result in the valve failing in the open position (Thereby preventing the ability to control flow). Failure to ensure the availability of FCV HV3227A challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-006-IA-007	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2B therefore must be isolated. Valve HV3228B if not closed, would admit feed water to SG2B if the TDAFW Pump spuriously starts. A loss of instrument air could result in the valve failing in the open position. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-IA-008	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2C therefore must be isolated. Valve HV3228C if not closed, would admit feed water to SG2C if the TDAFW Pump spuriously starts. A loss of instrument air could result in the valve failing in the open position. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-001	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2C. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-002	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2A ARV due to fire induced circuit failure would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-003	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371A could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-006-SEP-004	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371B (SG 2B) could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-005	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371C (SG 2C) could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-006	
VFDR	Q2N11V0001B:OPEN:CLOSED, 2B SG MSIV - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIVs provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close MSIV 2B through fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-007	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11V0001C:OPEN:CLOSED, 2C SG MSIV - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIVs provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close MSIV 2C through fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-008	
VFDR	Q2N11V0002A:OPEN:CLOSED, 2A SG MSIV - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIVs provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close MSIV 2A through fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-009	
VFDR	Q2N23HV3227A:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 1A - In order to achieve a controlled cool-down rate, the ability to control Feed water Flow along the AFW Discharge path is necessary. The MDAFW Flow Control Valve HV3227A is throttled in order to control Feed water Flow. Fire induced circuit failure could cause this valve to spuriously close thereby isolating the Feed water supply, or fail in the open position (Thereby preventing the ability to control flow). Failure to ensure the availability of FCV HV3227A challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-010	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2P16FV3009C:OPEN:OPEN, SW FROM 2C CCW HX - Component cooling water is required to cool the charging pumps as well as support RHR (Cold Shutdown, NPO) activities. Fire induced circuit failure to the Component Cooling Water SW Discharge valve (Q2P16FV3009C) resulting in spurious closure of the valve, could isolate the credited discharge path for CCW. Failure to ensure the availability of CCW challenges the RCS Pressure/Inventory Control and Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-011	
VFDR	Q2P17P0001C:STANDBY:ON, 2C COMPONENT COOLING WATER PUMP - The Component Cooling Water Pumps are required to circulate component cooling water to support cooling of the charging pumps. Fire induced circuit failure to Charging Pump 2B Train A or Charging Pump 2C could prevent use of the pump in this Fire Area. Failure to establish CCW challenges the RCS Inventory/Pressure Control and Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-012	
VFDR	N2N11LR0477:AVAILABLE-LT477:AVAILABLE-LT477, 2A, 2B, 2C STEAM GENERATOR WIDE RANGE LEVEL RECORDER - Decay Heat removal via SG 2A is desired in this Fire Area. SG Level Indication at the control room (or local control center) is required in order to monitor decay heat removal through the steam generators. Fire induced circuit failure to LI0474, LI0475, LI0476, or LI0477 could prevent these indicators from being available at the control room. These failures challenge the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-013	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - The circuit failures to the charging pump 2B (Train A) and the sequencer will not result in spurious start of the charging pump, but only prevent its operation, remotely. Hence if the pump is normally running, control power may not be available to remotely trip the pump. This failure may result in an overcharging condition and challenge the RCS Inventory Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-014	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Fire induced circuit failure to the control circuitry of the valve could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-015	
VFDR	Q2N11V0003D:CLOSED:CLOSED, 2A SG MSIV BYPASS - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIV Bypass Valves HV3976A and 3368A provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close the MSIV Bypass Valves due to fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-016	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11V0003E:CLOSED:CLOSED, 2B SG MSIV BYPASS - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIV Bypass Valves HV3976B and 3368B provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close the MSIV Bypass Valves due to fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-017	
VFDR	Q2N11V0003F:CLOSED:CLOSED, 2C SG MSIV BYPASS - Main Steam Isolation is sought after, to ensure that the Main Feed water Pumps are tripped, and no steam admission occurs to these pumps. The MSIV Bypass Valves HV3976C and 3368C provide a steam admission path to start the Main Feed water Pumps, and hence steam the appropriate generator. Spurious opening or failure to close the MSIV Bypass Valves due to fire induced circuit failure could result in an RCS overcooling condition. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-018	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2B therefore must be isolated. Valve HV3228B if not closed, would admit feed water to SG2B if the TDAFW Pump spuriously starts. Fire induced circuit failure of this valve or a loss of power from the TDAFW UPS could result in the valve failing in the open position. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-006-SEP-019	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2C therefore must be isolated. Valve HV3228C if not closed, would admit feed water to SG2C if the TDAFW Pump spuriously starts. Fire induced circuit failure of this valve or a loss of power from the TDAFW UPS could result in the valve failing in the open position. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-020	
VFDR	Q2N23V0025B:OPEN:CLOSED, MDAFWP TO 2B STEAM GENERATOR ISOLATION - Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2B therefore must be isolated. Valves 3764B, 3764D and HV3227B are located in series and control feed water flow to SG 2B, and one of these valve must close/remain closed. Fire induced control circuit damage to MOVs 3764B and 3764D could render these valves inoperable from the control room and prevent closure and/or result in spurious opening of these valves. Furthermore, fire induced circuit failure of HV3227B could result in the valve failing open as would a loss of instrument air to this valve. These failures challenge the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-021	
VFDR	Q2N23V0025C:OPEN:CLOSED, MDAFWP TO 2C STEAM GENERATOR ISOLATION - Decay Heat Removal via SG 2A is sought after in this Fire Area. Feed water admission to non-credited Steam Generators such as SG 2C therefore must be isolated. Valves 3764C, 3764F and HV3227C are located in series and control feed water flow to SG 2C, and one of these valve must close/remain closed. Fire induced control circuit damage to MOVs 3764C and 3764F could render these valves inoperable from the control room and prevent closure and/or result in spurious opening of these valves. Furthermore, fire induced circuit failure of HV3227C could result in the valve failing open as would a loss of instrument air to this valve. These failures challenge the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-022	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - The Motor Driven Auxiliary Feed water Pump is required to supply feed water to the Steam Generators in order to remove decay heat. Fire induced circuit failure along with the pump being physically present in this fire area could prevent operation of the Motor Driven AFW Pumps. Failure to ensure the availability of Pump 2A or 2B challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-006-SEP-023	
VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the RCS Sample Isolation Valves SV3333 or SV3765 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-006-SEP-024	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Gas Isolation Valves SV3104 or SV3331 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-006 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-006-SEP-025	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - The Sampling System must remain isolated at all times in order to ensure that RCS Inventory losses do not inadvertently occur. Spurious opening of the Pressurizer Sample Liquid Isolation Valves SV3103 or SV3332 due to fire induced circuit failure could result in an inadvertent diversion flow path for RCS Inventory. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2116-U1	2116 Cable Chase

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Although the sprinkler flow capacity may exceed drainage capacity, all water will drain to the bottom of the chase below elevation 100'. This will not impact the adjacent space or cables in the chase. Fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-53	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-53	Risk Criteria	Required to meet risk criteria.
Detection	2A-53	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-53	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-53	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-008-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.83E-10	
Δ LERF	4.08E-13	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U1 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-008-SEP-001	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1S - Q1R17B0509 - Motor Control Center 1S. The MCC is normally energized, required energized to support EDG 1-2A. Fire induced cable damage can disable the diesel generator to load onto Bus 1F and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-008-SEP-002	
VFDR	Q1R43E0501A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1H - QSR43A0501 - 1-2A Diesel Generator. The diesel generator is normally in standby, required energized to supply bus 1F. Fire induced cable damage can disable the diesel generator to load onto Bus 1F, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2116-U2	2116 Cable Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-008-U2 - Aux Building Cable Chase, Room 2116 Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump aligned to Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-008-U2 - Aux Building Cable Chase, Room 2116 Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using performance-based approach Train B MDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Although the sprinkler flow capacity may exceed drainage capacity, all water will drain to the bottom of the chase below elevation 100'. This will not impact the adjacent space or cables in the chase. Fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified; • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-53	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-53	Risk Criteria	Required to meet risk criteria.
Detection	2A-53	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-53	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-53	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-53	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point and to replace trip device in panel Q2R42B0001A, breaker LA13.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-008-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, modification(s) and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.21E-07	
Δ LERF	1.09E-09	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-008-IA-001	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spurious closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-008-SEP-001	
VFDR	N2B31LI0461:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-461 (PROTECTION CHANNEL III) - The indicator is normally available, required available at least one indicator from pressurizer level is required to provide process monitoring of RCS level. Fire induced cable result in failure to monitor the RCS level, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-003	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - The pump is normally running required off. Fire induced cable damage can prevent ability to trip pump, and a challenge the Reactor Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-004	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-005	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-006	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-007	
VFDR	Q2N12HV3234A:OPEN:OPEN/CLOSED, TDAFWP STEAM SUPPLY WARM-UP ISOLATION - The valve is normally open, required closed to prevent uncontrolled steam loss. Fire induced cable damage may fail valve open, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-008	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - Q2P15SV3103 - Pressurizer Liquid Solenoid Valve and Q2P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-009	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - Q2P15SV3104 - Pressurizer Steam Solenoid Valve and Q2P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-010	
VFDR	Q2P15SV3331:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM TO GFFD ISOLATION - Q2P15SV3104 - Pressurizer Steam Solenoid Valve and Q2P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-011	
VFDR	Q2P15SV3332:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID ISOLATION - Q2P15SV3103 - Pressurizer Liquid Solenoid Valve and Q2P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-012	
VFDR	Q2P15SV3333:CLOSED:OPEN/CLOSED, RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q2P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-013	
VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q2P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-014	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-015	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-016	
VFDR	N2B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-017	
VFDR	N2B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-018	
VFDR	N2B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-019	
VFDR	N2B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-008-SEP-020	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A - Pressurizer Heater Group 2A Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage and control power supply failure can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-021	
VFDR	Q2E13P0001A:ON:OFF, 2A CONTAINMENT SPRAY PUMP - Q2E13P0001A - 2A Containment Spray Pump and Q2E13V0005A - 2A CS Pump to Spray Header Isolation. The pump is normally off, required off and valve is normally closed required closed to prevent loss borated water source to sump. Fire induced cable damage to valve and failures of instruments generate a CSAS signal to spuriously start pump and open valve, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-022	
VFDR	Q2E13V0005A:OPEN:CLOSED, 2A CS PUMP TO SPRAY HEADER ISOLATION - Q2E13P0001A - 2A Containment Spray Pump and Q2E13V0005A - 2A CS Pump to Spray Header Isolation. The pump is normally off, required off and valve is normally closed required closed to prevent loss borated water source to sump. Fire induced cable damage to valve and failures of instruments generate a CSAS signal to spuriously start pump and open valve, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-023	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A Charging/HHSI Pump; Q2E21P0002B - 2B Charging/HHSI Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-024	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002A - 2A Charging/HHSI Pump; Q2E21P0002B - 2B Charging/HHSI Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-025	
VFDR	Q2R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2B - Q2E21P0002A - 2A Charging/HHSI Pump; Q2E21P0002B - 2B Charging/HHSI Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-026	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F - Q2E21P0002A - 2A Charging/HHSI Pump; Q2E21P0002B - 2B Charging/HHSI Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-027	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage generates SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-028	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - The valve is normally open, required to open to maintain RCS inventory. Fire induced damage to instruments generate a spurious SIAS signal to close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-008-SEP-029	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - The valve is normally modulated, required modulated to provide makeup. Fire induced cable damage, instrument air components failure and cascading power supply failures can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-030	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced damage to instruments generates a SIAS that can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-031	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced damage to instruments generates a SIAS that can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-032	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and challenge the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-033	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and challenge the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-034	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and challenge the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-035	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q1R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-036	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q1R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-037	
VFDR	Q2R21L0001A:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 2A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q1R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-038	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R21L0001B:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 2B - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q1R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-008-SEP-039	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required modulate to control steam generator pressure. Fire induced cable damage, instrument air components failures and cascading power supply failures prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-040	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required modulate to control steam generator pressure. Fire induced cable damage, instrument air components failures and cascading power supply failures prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-041	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required modulate to control steam generator pressure. Fire induced cable damage, instrument air components failures and cascading power supply failures prevent the ability to control steam generator pressure, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-042	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and cascading power failure can generate actuation signal that can spuriously operate valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-043	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and cascading power failure can generate actuation signal that can spuriously operate valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-044	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-045	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-046	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-047	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-008-U2 - Aux Building Cable Chase, Room 2116	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-048	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-008-SEP-049	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and challenge the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2117-U1	2117 Cable Chase
2246-U1	2246 Cable Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room OR Plant shutdown is performed from the Hot Shutdown Panel.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room OR Reactor is manually tripped from the Control Room prior to Control Room evacuation.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Although the sprinkler flow capacity may exceed drainage capacity, all water will drain to the bottom of the chase below elevation 100'. This will not impact the adjacent space or cables in the chase. Fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-55	Risk Criteria	Required to meet risk criteria.
Detection	2A-55	DID Criteria	Required to meet DID criteria.
Detection	2A-55 [2117]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-55 [2117]	Risk Criteria	Required to meet risk criteria.
Detection	2A-55 [2117]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-55	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-55 [2117]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-55 [2117]	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-009-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	2.87E-09	
Δ LERF	1.01E-11	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U1 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-009-SEP-001	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW to D/G 1B. The valve is normally closed, required closed to prevent crosstie of service water system. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2117-U2	2117 Cable Chase
2246-U2	2246 Cable Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and performance-based approach Train B PORV or block valve. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring performance-based approach auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group A for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2B. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 1/Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Although the sprinkler flow capacity may exceed drainage capacity, all water will drain to the bottom of the chase below elevation 100'. This will not impact the adjacent space or cables in the chase. Fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-55	Risk Criteria	Required to meet risk criteria.
Detection	2A-55	DID Criteria	Required to meet DID criteria.
Detection	2A-55 [2117]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-55 [2117]	Risk Criteria	Required to meet risk criteria.
Detection	2A-55 [2117]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-55	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-55	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-55 [Zone 2117]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-55 [Zone 2117]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-55 [Zone 2117]	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to wrap cables 2VYH2C05B, 2VYDG01 J with 1 hr fire rated wrap to prevent fire damage due to transient fire and HGL.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246 NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-009-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, modification(s), enhanced transient restrictions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	3.77E-07	
Δ LERF	8.79E-08	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, enhanced transient restrictions and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-009-ASSO-001	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 2F - Power is required to be available at the vital AC Buses in order to provide electrical support to various safe shutdown components. The offsite power supplies to Bus 2F cannot be guaranteed to be available because of a loss of over current protection at the Start Up Transformer Supply. The Diesel Generator supply may not remain available due a potential loss of coordination. A fault on the cited cable coupled with a loss of control power to the respective load breaker, could lead to an ultimate loss of Bus 2F. Failure to establish electrical power at Bus 2F challenges all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-ASSO-002	
VFDR	Q2R16B0002:ENERGIZED:ENERGIZED-LC2D, 600V LOAD CENTER 2A NORMAL-EMERGENCY - A fault on this power cable, concurrent with a loss of control power to the associated breaker, could cause the Load Center 2A Supply Breaker to trip. This is an associated circuits issue, which concerns availability of Load Center 2A. This Load Center provides power to Pressurizer Heater Group 2A, which can be relied upon to provide positive control of RCS Pressure if operational. Failure to ensure availability of this load center challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-001	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - This safe shutdown component requires AC or DC power to perform it's safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. In order to avoid inadvertent RCS Pressure Transients Heater Group B is desired off. A loss of control power to the Heater Group from 125V DC Panel 2E would prevent remote tripping of the load. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-009-BC-002	
VFDR	N2B31PT0445:AVAILABLE:AVAILABLE, SAFETY INJECTION PRESSURIZER TANK PRESSURE TRANSMITTER - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of the pressurizer control signal from PT445 could prevent re-closure of the valve once the auto-open feature has been actuated. PT445 suffers a loss of AC Power in this fire area, and cannot be relied upon to remain non-spurious. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-003	
VFDR	Q2E13PT0953:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL IV - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT953 could initiate a spurious Containment Hi-Hi signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This will not happen until the Battery Endurance time has been exhausted. This failure challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-004	
VFDR	Q2E13PT0952:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL III - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT952 could initiate a spurious Containment Hi-Hi signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and a failure to establish a charging injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This will not happen until the Battery Endurance time has been exhausted. This failure challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-005	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of power to charging pump 2C could result in an inability to trip the pump and a potential overcharging scenario. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-006	
VFDR	Q2N11PT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT475 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS could cause permanent RHR Pump Damage by spuriously starting the pump. The RHR system is required to provide decay heat removal in support of cold shutdown. These failures challenge the long term Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-007	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT485 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS could cause permanent RHR Pump Damage by spuriously starting the pump. The RHR system is required to provide decay heat removal in support of cold shutdown. These failures challenge the long term Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-BC-008	
VFDR	Q2N23HV3227B:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 1B - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Decay Heat Removal via SG2B is desired in this area, via MDAFW Pump 2B. In order to control feed water flow to SG2B, either the Flow control Valve HV3227B must be throttled, or MOVs V0025A and V0025B (MOV3764B and 3764D) must be throttled (Either one). A loss of DC power to panel 2D occurs once the endurance time of Battery 2B is exhausted and this prevents operator ability to unlatch relays MR4 or MR9, which would cause valve HV3227B to fail in the open position. These failures will prevent the ability to control feed water flow to SG 2B, thereby challenging the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-HVAC-001	
VFDR	Q2R42B0001B:ENERGIZED:ENERGIZED-BC2B, 125V DC BUS 2B - This component, 125V DC Bus 2B, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component could challenge various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-009-HVAC-002	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, Battery 2B, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component could challenge various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-009-SEP-001	
VFDR	N2P11V0901:MODULATED:CLOSED, SJAЕ BYPASS FCV - The Condensate Storage Tank is required to supply feed water to the AFW Pumps in order to remove Decay Heat. Fire induced control Circuit damage to Valve N2P11V0901 could result in diversion of CST inventory to a non-credited path. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-002	
VFDR	N2P11V0902:MODULATED:CLOSED, GS CONDENSATE BYPASS FCV - The Condensate Storage Tank is required to supply feed water to the AFW Pumps in order to remove Decay Heat. Fire induced control Circuit damage to Valve N2P11V0902 could result in diversion of CST inventory to a non-credited path. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-003	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2P19V0077:OPEN:OPEN, INSTRUMENT AIR TO PENETRATION ROOM ISOLATION - Valve HV3825 is required open in order to supply containment instrument air to various safe shutdown AOVs in containment (e.g. PORVs/Aux Spray). Fire induced control circuit damage could result in spurious closure of this valve, thereby eliminating the instrument air supply. Positive control of these AOVs is required to maintain appropriate RCS conditions. A failure to supply these valves with containment instrument air challenges the RCS Inventory/Pressure Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-004	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - The pressurizer PORV is required to isolate the Pressurizer from the RCS in order to prevent inadvertent de-pressurization. Fire induced control circuit damage could spuriously open the PORV, thereby leading to a de-pressurization condition. Failure to secure the pressurizer challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-005	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - The Reactor Coolant Pumps circulate RCS Coolant though the primary side, in order to transfer decay heat. In order to achieve a controlled natural circulation cool down, the Reactor Coolant Pumps are desired to be off. Fire induced circuit failure may spuriously start Reactor Coolant Pump 2B, and/or prevent tripping capability from the control room. Failure to trip Reactor Coolant Pump 2B challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-006	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - Aux-Spray should be isolated in order to prevent inadvertent de-pressurization of the RCS System. Valve V245 supplies the pressurizer with charging inventory for Aux-Spray. Fire induced control cable damage could spuriously open this valve, thereby spraying the pressurizer with charging inventory, and leading to uncontrolled RCS de-pressurization. A failure to isolate this charging supply challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-007	
VFDR	Q2E21V0258:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - A Charging Path is necessary in order to establish RCS Inventory Makeup. Valve V258 isolates the charging supply from the letdown heat exchanger. In order to establish a charging path this valve must remain open. Fire induced circuit failure could result in spurious closure of this valve. Failure to establish a charging path challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-008	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - The charging pumps are initially aligned to the VCT to receive suction. Fire induced control circuit damage could cause the outlet valve LCV0115E to close. The VCT outlet valve must remain open until swap over to the RWST is guaranteed. Furthermore, spurious SIAS is credible due to a loss of AC power, however it may not occur until the battery (2A and 2B) endurance time is exceeded. (Battery Chargers are not available) Failure to correctly swap over suction to the RWST challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-009	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2A - Feed water Flow via SG 2A needs to be isolated in this fire area, since it is not credited. Fire induced control circuit damage could result in valve HV3228A spuriously opening, thereby admitting feed water to SG2A via the TDAFW Pump. Furthermore, the TDAFW Pump could spuriously start due to its steam admission valves spuriously opening. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2A will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-010	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Feed water Flow via SG 2C needs to be isolated in this fire area, since it is not credited. Fire induced control circuit damage could result in valve HV3228C spuriously opening, thereby admitting feed water to SG2C via the TDAFW Pump. Furthermore, the TDAFW Pump could spuriously start due to its steam admission valves spuriously opening. Decay Heat Removal via SG 2B is desired in this area. An inability to isolate AFW flow to SG 2C will pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-011	
VFDR	Q2B13HV0003:CLOSED:CLOSED, REACTOR VESSEL HEAD VENT - The Reactor Vessel Head Vent Valves isolate the Reactor vessel from the pressurizer relief tank. Spurious opening of Q2B13HV0003 or Q2B13HV0004 due fire induced circuit failure could cause a loss of RCS inventory through the open reactor head vent path. This failure poses a challenge to the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-012	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31PT0445:AVAILABLE:AVAILABLE, SAFETY INJECTION PRESSURIZER TANK PRESSURE TRANSMITTER - The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of the pressurizer control signal from PT445 could prevent re-closure of the valve once the auto-open feature has been actuated. PT445 suffers fire induced cable damage in this fire area, and cannot be relied upon to remain non-spurious. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-013	
VFDR	Q2B31V0027B:OPEN:OPEN/CLOSED, PORV BLOCK VALVE - The PORV or the PORV block valve must close/remain closed in order to isolate the pressurizer system. A loss of power to the Pressurizer PORV block valve would prevent closure of this normally open MOV. The valve control circuit remains free from fire damage. Failure to secure the Pressurizer challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-014	
VFDR	Q2E13P0001B:ON:OFF, 2B CONTAINMENT SPRAY PUMP - The RWST is the credited source of suction for Charging. Inadvertent drain down of the RWST due to spurious opening of the containment spray header valves/or spurious start of the CS Pump could lead to drain down. Fire induced control circuit damage to the Pump 2B and the CS Header valve 8820B could lead to drain down. Failure to secure CS Pump 2B or isolate the header path challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-015	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-009-U2 - Aux Building Cable Chase, Rooms 2117 & 2246	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3227B:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 2B - Decay Heat Removal via SG2B is desired in this area, via MDAFW Pump 2B. In order to control feed water flow to SG2B, either the Flow control Valve HV3227B must be throttled, or MOVs V0025A and V0025B (MOV3764B and 3764D) must be throttled (Either one). All three valves suffer fire induced control circuit damage in this area that would disable throttling capability. All of these valves however, will fail in the open position due to fire induced control circuit damage. These failures will prevent the ability to control feed water flow to SG 2B, thereby challenging the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-016	
VFDR	N2P19V0080:OPEN:OPEN, INSTRUMENT AIR TO PENETRATION ROOM ISOLATION - Valve HV3885 is required open in order to supply containment instrument air to various safe shutdown AOVs in containment (e.g. PORVs/Aux Spray). Fire induced control circuit damage could result in spurious closure of this valve, thereby eliminating the instrument air supply. Furthermore, a loss of power to 125V DC Distribution Panel 2D and BOP Cabinet K will also cause this valve to fail in the closed position. Positive control of these AOVs is required to maintain appropriate RCS conditions. A failure to supply these valves with containment instrument air challenges the RCS Inventory/Pressure Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-009-SEP-017	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - The RHR system is required to provide decay heat removal in support of cold shutdown. Therefore, it should remain available for use during these cold shutdown operations. Spurious Start of the RHR Pump along due to control circuit damage coupled with spurious closure of the RHR Pump 2B Miniflow valve also due to control circuit damage would prevent recirculation of RHR flow, thereby leading to a potential damage concern for the pump. The RHR Pump could also start upon a spurious load sequencing signal which is credible in this fire area. These failures challenge the long term Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2254	2254 Hallway/Local Hot Shutdown Panel Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> • Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power. • Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> • Unit 2: RCS inventory is controlled using Train A charging pump, or swing charging pump via Train A power aligned to the RWST. • Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 2: Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. • Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> • Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. • Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
	pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - Performance-based approach RCS pressure is monitored. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2/Loop 3 temperature is monitored. 5. SG Pressure - Performance-based approach Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Performance-based approach Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
	monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train A component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Engineering Evaluation ID	ENGDOC, DOEJ-SM-03-0415-001 Applicability of NFPA 80 Door Closer Requirements	
Revision		
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This evaluation addresses a select number of fire doors that occasionally may not automatically latch closed due to "abnormal air pressure".</p> <p>Bases for Acceptability:</p> <p>The specific fire doors cited are PA101, 201 and 497. The evaluation justifies the door latching deviation by taking credit for plant staff that ensure all fire doors are closed after entry or egress.</p>	

Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-104	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-104	Risk Criteria	Required to meet risk criteria.
Detection	2A-104	DID Criteria	Required to meet DID criteria.
Passive	Plant staff Training	EEEE/LA	Plant Staff Training is required to address a door closure.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to install incipient detection and to replace trip device in panel Q2R42B0001B, breaker LB14.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-012	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system and modification(s), the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	2.71E-08	
Δ LERF	4.78E-11	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-012-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-IA-003	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-IA-005	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. In order to achieve atmospheric relief on the secondary side, modulation of MSARV valve to SG2C is required. A loss of instrument air will result in the valve failing closed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-001	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater 2B, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater 2B could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-002	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Charging via the CVCS system is required to maintain RCS Inventory, however only one charging pump is credited for operation. Fire induced control circuit damage to Train B Charging (Pump 2B-aligned Train B) could result in spurious starting of the pump. This could lead to an overcharging condition by adding an excessive amount of Charging Inventory to the RCS. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-003	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Charging via the CVCS system is required to maintain RCS Inventory, however only one charging pump is credited for operation. Fire induced control circuit damage to Train B Charging (Pump 2C) could result in spurious starting of the pump. This could lead to an overcharging condition by adding an excessive amount of Charging Inventory to the RCS. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-004	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFW STEAM SUPPLY ISOLATION VALVE HV3235A - The TDAFW Pump Steam Admission valves must remain closed in order to avoid spurious steam admission into the pump, and lead to a spurious pump start. Fire induced control circuit damage to HV3235A could result in the valve spuriously opening and admitting steam to the non-credited TDAFW Pump. Failure to secure these valves challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-005	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - The TDAFW Pump Steam Admission valves must remain closed in order to avoid spurious steam admission into the pump, and lead to a spurious pump start. Fire induced control circuit damage to HV3235B could result in the valve spuriously opening and admitting steam to the non-credited TDAFW Pump. Failure to secure these valves challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-008	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. This valve is required to throttle in order to control the amount of charging inventory that enters the RCS System. Fire induced control circuit failure could result in this valve failing fully open, or spuriously closing. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-012-SEP-011	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - Source Range Instrumentation is required to monitor Reactivity Conditions. A loss of channel 1 and channel 2 Source Range Detectors could occur, due to fire induced circuit failures. This would prevent operator ability to monitor source range count levels. Failure to monitor subcritical conditions challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-012 - Hallway & Local Hot Shutdown Panel Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-012-SEP-013	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - In order to achieve atmospheric relief on the secondary side, modulation of MSARV valve to SG2C is necessary. Since cool down via SG2C is desired in this area, fire induced circuit failure to the control circuitry of this valve could cause the valve to fail in the closed position. Failure to secure this valve challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2227-U1	2227 Vertical Cable Chase, El. 128'-0"
2300-U1	2300 Vertical Cable Chase, El. 141'-0"
2466-U1	2466 Vertical Cable Chase, El. 155'-0"
2500-U1	2500 Vertical Cable Chase, El. 168'-6"

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system location of equipment being above water collection area in chase. There are no drains in the electrical chase, but all water would collect below the cable trays. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-23	Separation	Required to support the use of MI cable.
Water Suppression	2A-23	Separation	Required to support the use of MI cable.
Passive	One Hour Rated Cable	Separation	Required to support the use of MI cable.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U1 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Title	N/A
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.

Δ CDF

Δ LERF

DID Maintained

Safety Margin Maintained

Comments

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2227-U2	2227 Vertical Cable Chase, El. 128'-0"
2300-U2	2300 Vertical Cable Chase, El. 141'-0"
2466-U2	2466 Vertical Cable Chase, El. 155'-0"
2500-U2	2500 Vertical Cable Chase, El. 168'-6"

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and performance-based approach Pressurizer Heater Group A for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A/2B. Main feed is performance-based approach isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - Performance-based approach RCS pressure is monitored. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2 temperature is monitored. 5. SG Pressure - Performance-based approach Steam Generator 2A/2B pressure is monitored. 6. SG Level - Performance-based approach Steam Generator 2A/2B level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system location of equipment being above water collection area in chase. There are no drains in the electrical chase, but all water would collect below the cable trays. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-23 [1]	Risk Criteria	Required to meet risk criteria.
Detection	2A-23 [1]	DID Criteria	Required to meet DID criteria.
Detection	2A-23 [2300]	Risk Criteria	Required to meet risk criteria.
Detection	2A-23 [2300]	Separation	Required to support the use of MI cable.
Detection	2A-43	Risk Criteria	Required to meet risk criteria.
Detection	2A-43	Separation	Required to support the use of MI cable.
Water Suppression	2A-23	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-23	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-23 [2300]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-23 [2300]	Separation	Required to support the use of MI cable.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Separation	Required to support the use of MI cable.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point and replace trip device in panel Q2R42B0001B, breaker LB14.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-013-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with fire rated cable, modification(s), enhanced transient restrictions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	7.97E-08	
Δ LERF	1.38E-08	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, enhanced transient restrictions and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-013-IA-001	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-001	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-005	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL -The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-006	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31LI0459A:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR - The indicator is normally available, required available at least one indicator from pressurizer level is required to provide process monitoring of RCS level. Fire induced cable result in failure to monitor the RCS level, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-008	
VFDR	N2B31PI0455:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-455 (PROTECTION CHANNEL I) - The indicator is normally available, required available for pressurizer pressure monitoring. Fire induced cable damage prevents the ability to monitor the pressure, and a challenge to the performance monitoring of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-009	
VFDR	N2B31PI0456:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-456 (PROTECTION CHANNEL II) - The indicator is normally available, required available for pressurizer pressure monitoring. Fire induced cable damage prevents the ability to monitor the pressure, and a challenge to the performance monitoring of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-014	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and N2C55NI0032A - Source Range Count Rate Indicator NI-32A. The indicator is normally available, required available to monitor shutdown margin. Fire induced cable damage prevents the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-013-SEP-015	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and N2C55NI0032A - Source Range Count Rate Indicator NI-32A. The indicator is normally available, required available to monitor shutdown margin. Fire induced cable damage prevents the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-013-SEP-016	
VFDR	N2N11LR0477:AVAILABLE-LT477:AVAILABLE-LT477, 2A, 2B, 2C STEAM GENERATOR WIDE RANGE LEVEL RECORDER - The recorder is normally available, required available at least one indicator from credited steam generator is required to provide process monitoring of steam generator level. Fire induced cable result in failure to monitor the steam generator level, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N11PI0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-019	
VFDR	N2N11PI0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-022	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-023	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-024	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-025	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage can spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-026	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage can spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-027	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - The pump is normally off, required on to provide AFW to a steam generator. Fire induced cable damage can prevent the ability of pump to deliver flow to steam generator, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-031	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage to power supply may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-032	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage and control power supply failure may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-013-SEP-033	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The heater is normally available, required available to control pressure. Fire induced damage to power supplies result in failure of heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-034	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage and control power supply failure can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-035	
VFDR	N2B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced damage to power supplies can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-036	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced damage to power supplies can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-037	
VFDR	N2B31PT0445:AVAILABLE:AVAILABLE, SAFETY INJECTION PRESSURIZER TANK PRESSURE TRANSMITTER - Q2B31V0053 - Pressurizer Power Operated Relief; N2B31PT0445 - Safety Injection Pressurizer Tank Pressure Transmitter. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components and transmitter signal prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-042	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E; Q2R43E0001B - Sequencer Bus 2G. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-043	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E; Q2R43E0001B - Sequencer Bus 2G. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-044	
VFDR	Q2R41L0001E:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2E - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E; Q2R43E0001B - Sequencer Bus 2G. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-045	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E; Q2R43E0001B - Sequencer Bus 2G. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-046	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage generates SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-047	
VFDR	Q2E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage may generate a SIAS to preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-048	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage may generate a SIAS to preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-049	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - The valve is normally modulated, required modulated to provide makeup. Fire induced cable damage and instrument air components failure can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-050	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced damage to power supplies generate SIAS or low VCT level to spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-051	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced damage to power supplies generate SIAS or low VCT level to spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-052	
VFDR	Q2N21V0001A:OPEN:CLOSED, A STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232A - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-053	
VFDR	Q2N21V0001B:OPEN:CLOSED, B STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232B - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-054	
VFDR	Q2N21V0001C:OPEN:CLOSED, C STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232C - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-055	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N21P0001A:ON/STANDBY:OFF, CONDENSATE PUMP 2A - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-056	
VFDR	N2N21P0001B:ON/STANDBY:OFF, CONDENSATE PUMP 2B - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-057	
VFDR	N2N21P0001C:ON/STANDBY:OFF, CONDENSATE PUMP 2C - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-058	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001B - Sequencer Bus 2G. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced cable damage, spurious SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-059	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001B - Sequencer Bus 2G. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced cable damage, spurious SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-060	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage and instrument air components failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-061	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required to cycle to control steam generator pressure. Fire induced cable damage and instrument air components failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-062	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2A - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-063	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-064	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-065	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 1B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-066	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-067	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 1C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and instrument air components failures may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-068	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage to power supply may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-069	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage and control power supply failure may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-013-SEP-070	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-013-U2 - Aux Building Cable Chase, Rooms 2227, 2300, 2466, & 2500	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage to power supply may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2201	2201 Computer Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> • Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. • Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - Performance-based approach RCS pressure is monitored. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Performance-based approach Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Performance-based approach Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-33	DID Criteria	Required to meet DID criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-014	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	4.05E-11	
Δ LERF	9.76E-15	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-014-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-IA-003	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-014 - Computer Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-IA-005	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat. Decay Heat Removal via SG2A is desired in this fire area. A loss of instrument air will cause valve ARV PV3371A to fail closed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-SEP-001	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - RCS Temperature Indication at the control room (or local control center) is required in order to remove decay heat through the steam generators. Fire induced circuit damage to Temperature Element TE410 will prevent indication from being available at the control for RCS Loop 1(Hot Leg). Furthermore, a loss of power to AC Panel 2B will prevent indication via TE410 from being available, due to power feed circuit damage. This failure challenges the Decay Heat Removal Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-SEP-003	
VFDR	Q2C22LT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A LEVEL TRANSMITTER - Decay Heat Removal via SG 2A is desired in this fire area. In order to remove Core Decay Heat, Steam Generator Level Indication must remain available for operators at the control room. Fire induced circuit failure to LI0474, LI0475, LI0477, and LI0478 could render SG 2A Level Indication unavailable. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. (All four indicators must suffer failure).This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-SEP-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. This valve is required to be throttled in order to control the charging inventory flow into the RCS System. Fire induced circuit failure could result in the valve spuriously opening, or closing. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-014-SEP-007	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-014 - Computer Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - Source Range Instrumentation is required to monitor Reactivity Conditions. A loss of channel 1 and channel 2 Source Range Detectors could occur, due to fire induced circuit failures. This would prevent operator ability to monitor source range count levels. Failure to monitor subcritical conditions challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2202	2202 Communication Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> • Unit 2: Subcritical conditions are maintained by performance-based approach isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power. • Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> • Unit 2: RCS inventory is controlled using Train B charging pump, or swing charging pump via Train B power aligned to the RWST. • Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> • Unit 2: Normal letdown is performance-based approach isolated. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. • Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> • Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump, or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. • Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
	tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 2. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2/Loop 3 temperature is monitored. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train B component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-34	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-34	Risk Criteria	Required to meet risk criteria.
Detection	2A-34	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-34	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-34	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-34	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to install incipient detection and replace trip device in panel Q2R42B0001A, breaker LA20; panel Q2R42B0001B, breaker LB14.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-015	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s) and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.30E-07	
Δ LERF	1.06E-09	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-015-SEP-001	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater Group A, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater Group A could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-002	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2A suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-003	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (Aligned Train B) suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-004	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system, for both aux-spray and inventory makeup. This valve is required to modulate in order to control the quantity of charging Inventory that is injected into the RCS System. Fire induced control circuit damage could spuriously close the valve or cause it to fail in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-005	
VFDR	Q2E21V0376A:OPEN:CLOSED, VCT OUTLET ISOLATION - The cited circuit is associated with the RWST outlet valve. If the RWST outlet (V336A) were to spuriously open, a valve interlock would initiate swap over to the RWST by closing the VCT outlet isolation valves. Since this the credited lineup for safe shutdown, this failure mode is not considered detrimental to the functionality of this valve. Operator capability will still remain available to initiate swap over. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-006	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief is required on the secondary side to relieve steam generator pressure. Since DHR via SG 2A is desired in this fire area, MSARV 3371A must modulate to relieve steam. Fire induced control circuit damage could result in the valve spuriously opening, or failing closed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-007	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat, however they must be closed initially. Fire induced control circuit damage could result in MSARV 3371A spuriously opening. Decay Heat Removal via SG2A is desired in this fire area. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-008	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat, however they must be closed initially. Fire induced control circuit damage could result in MSARV 3371B spuriously opening. Decay Heat Removal via SG2A is desired in this fire area. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-009	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat, however they must be closed initially. Fire induced control circuit damage could result in MSARV 3371C spuriously opening. Decay Heat Removal via SG2A is desired in this fire area. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-010	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-015 - Communication Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - Decay Heat Removal via SG 2A is desired in this fire area. In order to remove Core Decay Heat, RCS Loop Temperature Indication must remain available for operators at the control room. Fire induced circuit failure to circuits associated with TR0413 or TR0410 (Hot Leg and Cold Leg respectively) could render Loop 1 Temperature Indication unavailable. Furthermore AC panel 2A which provides power to TE410 suffers circuit damage associated with the panel feed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-011	
VFDR	Q2E21V0367:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Letdown isolation is necessary in order to maintain adequate pressurizer level and thus an adequate amount of RCS Inventory. Letdown isolation can be achieved by closing the letdown line isolation valves LCV0460 or LCV0459, or by closing all 3 Letdown Orifice Isolation Valves (8149A, B, C). Fire induced control circuit damage to the Letdown Orifice Isolation Valves (all 3) could result in the valves spuriously operating. The Letdown Line Isolation valves are subject to spurious operation from control circuit damage. A spurious letdown path could result in an inadequate amount of RCS Inventory. This failure challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-015-SEP-012	
VFDR	Q2N12HV3226:CLOSED:CLOSED, TDAFW TURBINE STEAM SUPPLY ISOLATION - The TDAFW Pump is not credited in this area, therefore a spurious start of the TDAFW Pump (via spurious steam admission) along with spurious TDAFW feed water admission to a non-credited steam generator could lead to an uncontrolled cool-down condition. The TDAFW regulator valves (HV3228B and C) could spuriously open in this fire area. If an acceptable mitigation strategy exists to close these valves, then spurious steam admission is not a concern, since the feed water flow is isolated. Alternatively, fire induced circuit failure could cause spurious steam admission to the TDAFW Pump. If these steam supplies can be isolated, and hence the TDAFW Pump secured, then, the feed water regulator valves need not be closed. (HV3228B and C). This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-016 - Aux Building Battery Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2212	2212 Battery Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-016 - Aux Building Battery Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump, or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump, or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-016 - Aux Building Battery Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump, or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-016 - Aux Building Battery Room Compliance Basis: NFPA 805, Section 4.2.3 Deterministic Approach		Performance Goals
Performance Goal	Method of Accomplishment	Comments
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-016 - Aux Building Battery Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-016 - Aux Building Battery Room	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.3 Deterministic Approach	
Title	N/A	
Summary	This fire area complies with the deterministic requirements of Section 4.2.3 of NFPA 805. Therefore, a fire risk evaluation is not required.	
Δ CDF		
Δ LERF		
DiD Maintained		
Safety Margin Maintained		
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2214	2214 Battery Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train B charging pump, or swing charging pump via Train B power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump, or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train B MDAFW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train B component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation	
Revision	1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none">• Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question;• Refinement of field judgments through review of design drawing/documentation; or• Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs.	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

- Elements with construction features equal to 3-hr boundaries were credited as such,
- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-32	DID Criteria	Required to meet DID criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-017	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.79E-07	
Δ LERF	2.71E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-017-SEP-001	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater Group A, or prevent remote tripping of the load. Failure to secure the Pressurizer Heater Group A could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-002	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (aligned to Train A) suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-003	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (aligned to Train A) suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-004	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system, for both aux-spray and inventory makeup. This valve is required to modulate in order to control the quantity of charging Inventory that is injected into the RCS System. Fire induced control circuit damage could spuriously close the valve or cause it to fail in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-005	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat, however they must be closed initially. Fire induced control circuit damage could result in MSARV 3371A spuriously opening or failing closed. Decay Heat Removal via SG2A is desired in this fire area. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-006	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to isolate the secondary side initially. Decay Heat Removal via SG2A is desired in this fire area. Fire induced circuit failure to MSARV 3371A could result in the valve spuriously opening. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-007	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-017 - Aux Building Battery Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to isolate the secondary side initially. Decay Heat Removal via SG2A is desired in this fire area. Fire induced circuit failure to MSARV 3371B could result in the valve spuriously opening. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-017-SEP-008	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to isolate the secondary side initially. Decay Heat Removal via SG2C is desired in this fire area. Fire induced circuit failure to MSARV 3371B could result in the valve spuriously opening. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2224	2224 dc Switchgear Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-018 - Aux Building DC Switchgear Room Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	Performance Goals
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.2 Vital Auxiliaries Service Water	<ul style="list-style-type: none"> Unit 2: Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 1: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train B component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-32	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-32	Risk Criteria	Required to meet risk criteria.
Detection	2A-32	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to wrap conduits 2VAHD319 and 2VAID304 with 1 hr fire rated wrap to prevent fire damage due to HGL and provide fuse or other electrical isolation device at the DC shunt connection point.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-018	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with specified recovery actions, modification to wrap conduits and provide fuse or other electrical isolation device at the DC shunt connection point, Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available and the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	3.51E-07	
Δ LERF	1.07E-09	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available and the installed detection system were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-018-SEP-001	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric Relief must initially be isolated on the secondary side. Fire induced circuit damage to SG 2A MSARV could result in the valve spuriously opening. Failure to ensure isolation on the secondary side challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-002	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric Relief must initially be isolated on the secondary side. Fire induced circuit damage to SG 2B MSARV could result in the valve spuriously opening. Failure to ensure isolation on the secondary side challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-003	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric Relief must initially be isolated on the secondary side. Fire induced circuit damage to SG 2C MSARV could result in the valve spuriously opening. Failure to ensure isolation on the secondary side challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-004	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying/deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - Decay Heat Removal via SG 2C is desired in this fire area. In order to successfully remove and monitor decay heat removal, RCS and SG Process Instrumentation must remain available. A loss of power to TE433 from panel 2A will prevent the monitoring of RCS Loop 3 Hot Leg Temperature. AC Panel 2A may not remain available due to a loss of power (Cable and upstream supply). Failure to monitor RCS Hot Leg temperature conditions challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-018-SEP-005	
VFDR	N2B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - Decay Heat Removal via SG 2C is desired in this fire area. In order to successfully remove and monitor decay heat removal, RCS and SG Process Instrumentation must remain available. A loss of power to TE430 from panel 2B will prevent the monitoring of RCS Loop 3 Cold Leg Temperature. AC Panel 2B may not remain available due to a loss of power (Cable and upstream supply). Failure to monitor RCS Cold Leg temperature conditions challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-018-SEP-006	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater Group A, or prevent remote tripping of the load. Furthermore a loss of control power at panel 2B would prevent tripping of the load remotely. Failure to secure the Pressurizer Heater Group A could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-018-SEP-007	
VFDR	N2B31LI0460:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-460 (PROTECTION CHANNEL II) - RCS Pressurizer Level Indication must remain available from the control room in order to monitor Pressurizer Level conditions, and permit operators to accommodate unwanted RCS transients. A loss of power to the Channel 2 indicator LI0460 could render the indicator unavailable for indication. The power supply cabinet is supplied from MCC 2U which only suffers an upstream loss of control power at load center 2D. The AC supply may remain available. All other pressurizer level indicators suffer circuit damage. Failure to ensure pressure indication challenges the RCS Pressure control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-008	
VFDR	Q2B31PT0456:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE TRANSMITTER - MCC 2U supplies this instrument transmitter loop via AC panel 2D. MCC 2U is supplied from Load Center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of AC power instrument transmitter could initiate a spurious SIAS signal, which could lead to isolation of a possible credited charging injection path via the RCP seals (Close the Inboard RCP Seal Valves). These failures challenge the RCS Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-009	
VFDR	Q2C22LT0474:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A LEVEL TRANSMITTER - MCC 2U supplies power to this transmitter through AC panel 2C. MCC 2U is supplied from Load Center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of AC power to this transmitter could initiate a spurious ATWS signal, thereby opening the feedwater regulating valves. A spurious open of the SG 2B Feedwater Regulating Valve HV3228B, could inadvertently supply feedwater to the non-credited SG 2B. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-010	
VFDR	Q2C22LT0484:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B LEVEL TRANSMITTER - MCC 2U supplies power to this transmitter through AC panel 2C. MCC 2U is supplied from Load center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of AC power to this transmitter could initiate a spurious SG 2B Lo-Lo signal, thereby opening the feed water regulating valves. A spurious open of the SG2B Feed water Regulating Valve HV3228B, could inadvertently supply Feed water to the non-credited SG 2B. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-011	
VFDR	Q2C22LT0494:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C LEVEL TRANSMITTER - MCC 2U supplies power to this transmitter through AC panel 2C. MCC 2U is supplied from Load center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of AC power to this transmitter could initiate a spurious MDAFW Pump start signal. While the pump is credited, a spurious start before the credited lineup is established could lead to potential pump damage. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-012	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q2E13PT0950:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL I - MCC 2U supplies this instrument transmitter loop via AC panel 2C. MCC 2U is supplied from Load center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of AC power instrument transmitter could initiate a spurious CIAS signal, which could isolate the backup air supply valve HV2228 to the PORVs. This would lead to an inability to cycle the PORVs in order to de-pressurize the RCS system. These failures challenge the RCS Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-018-SEP-013
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VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Charging pump 2C is credited for operation in this area. Failure to trip the non credited charging pump 2A or 2B (aligned to Train A) due to a loss of control power or control circuit fire induced failure, could lead to an overcharging condition, thereby challenging the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-018-SEP-014
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VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q1E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. The valve suffers control circuit damage that could result in spurious opening or closure of the valve. Fire induced valve control circuit damage and/or a loss of power from Process Cabinet B and F could result in the valve spuriously closing or failing in the open position. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-018-SEP-015
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Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - Source Range indication is required in order to monitor subcritical conditions. A loss of AC power to both source range channel detectors would result in an inability to monitor these subcritical conditions. AC Panels 2A and 2B supply vital AC power to channel 1 and channel 2 source range detectors. Fire induced cable damage, along with a loss of the upstream AC supply will cause these power supplies to be unavailable for a fire in this area. This failure challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-018-SEP-016	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2C ARV (PV3371C) due to a loss of power or control would cause the valve to fail closed. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-018-SEP-017	
VFDR	Q2N23L0001:ENERGIZED:ENERGIZED, TDAFW PUMP UNINTERRUPTABLE POWER SUPPLY - MCC 2A supplies power to the TDAFW Pump UPS. MCC 2A is supplied from Load center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. A loss of power to the TDAFW UPS could cause the corresponding SG Feed water Regulating Valves HV3228A and B to fail open. This would result in an inadvertent supply of Feed water to Non-Credited Steam Generators. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-018-SEP-018	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-018 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2P19C0001C:STANDBY:ON, SERVICE AIR COMPRESSOR 2C - Load Center 2A supplies power to Compressor 2C. Load Center 2A is supplied from Load center 2D, which only suffers a loss of DC control power in this area. The AC supply remains unaffected, however over current protection cannot be guaranteed, and thus coordination issues could arise. Failure to provide power to the compressor, would result in a loss of instrument air to containment. This in turn, would prevent control of various Air-Operated Valves associated with regulating RCS Pressure (PORVs, Aux Spray) or Decay Heat Removal (MSARVs). These failures challenge the RCS Pressure Control and Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2226	2226 dc Switchgear Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> Unit 2: Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group A for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A/2B. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 1/Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 1: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<ul style="list-style-type: none"> Unit 2: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 1: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train A component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-32	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-32	Risk Criteria	Required to meet risk criteria.
Detection	2A-32	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to wrap conduit 2VCHF263 with 1 hr fire rated wrap and provide fuse or other elec. iso. device at the DC shunt connection pt. and replace trip device in panel Q2R42B0001B, breaker LB07.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-019	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, modification(s), and the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	6.10E-07	
Δ LERF	4.56E-09	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-019-SEP-001	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater Group B, or prevent remote tripping of the load. Furthermore a loss of control power at panel 2E would prevent tripping of the load remotely. Failure to secure the Pressurizer Heater Group B could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-019-SEP-003	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - De-pressurization of the RCS system is required in order to accommodate RCS Pressure changes. The Pressurizer PORVs are cycled in order to achieve RCS de-pressurization. A loss of instrument air due to air intake valve failures (power supply failures to these valves) could impair the ability to cycle the PORVs. This failure challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-019-SEP-005	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Charging via the CVCS system is required to maintain RCS Inventory, however only one charging pump is credited for operation. Fire induced control circuit damage to Pump 2C and/or Pump 2B Train B Charging could result in spurious starting of the pump, or a failure to trip the pump. Furthermore control power to trip the pump is not available from panel 2E. Failure to trip these pumps could lead to an overcharging condition by adding an excessive amount of Charging Inventory to the RCS. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-019 - Aux Building DC Switchgear Room	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-019-SEP-008	
VFDR	Q2R16B0007:ENERGIZED:ENERGIZED, 600V LOADCENTER 2E - The load center is normally energized required energized. Control power at Load Center 2E is required to ensure operation of load center. Failure of control power to the load center, can lead to a loss of coordination may contribute to an inadvertent load center supply breaker trip, and a loss of all AC power to the load center. The failures challenge the electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-019-SEP-009	
VFDR	Q2E16H0010:STANDBY:ON, 600V LOADCENTER 2E ROOM AIR COOLER - The cooler is normally available, required available. Fire induced circuit damage to cooler prevents the ability to cooler to support electrical equipment. This failure can lead to failure of required electrical equipment. The failures challenges the HVAC support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2210	2210 Corridor
2211	2211 Corridor
2213	2213 Battery Service Room
2225	2225 Battery Charger Room
2228	2228 Corridor
2234	2234 Hallway
2244	2244 Roof of Battery 2B Room, El. 131'-0"
2245	2245 Roof of Battery 2A Room, El. 131'-0"

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using performance-based approach Train A charging pump or swing charging pump via Train A power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using performance-based approach Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 1 Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and performance-based approach Pressurizer Heater Group A for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using performance-based approach Train A MDAFW pump or TDAFW pump supplying Steam Generator 2B. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 2. 4. RCS Temperature - Performance-based approach RCS Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<ul style="list-style-type: none"> Unit 2: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 1: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train A component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	<ul style="list-style-type: none"> Unit 2: Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train. Unit 1: Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train. 	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-32 [2213]	Risk Criteria	Required to meet risk criteria.
Detection	2A-32 [2213]	DID Criteria	Required to meet DID criteria.
Detection	2A-32 [2225]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-32 [2225]	Risk Criteria	Required to meet risk criteria.
Detection	2A-32 [2225]	DID Criteria	Required to meet DID criteria.
Detection	2A-36 [2210,2228,2234]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-36 [2210,2228,2234]	Risk Criteria	Required to meet risk criteria.
Detection	2A-36 [2210,2228,2234]	DID Criteria	Required to meet DID criteria.
Detection	2A-36 [2211, 2244, 2245]	Risk Criteria	Required to meet risk criteria.
Detection	2A-36 [2211, 2244, 2245]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-36 [2210]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-36 [2210]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-36 [2210]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-36 [2211, 2213, 2245]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-36 [2234]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-36 [2234]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-36 [2244]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-36 [2244]	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point and replace trip device in panel Q2R42B0001A, breaker LA20; Q2R42B0001B, breaker LB07, LB14.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-020	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s) and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	7.26E-08	
Δ LERF	1.46E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available the installed and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained."	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-020-HVAC-001	
VFDR	Q2R42B0001A:ENERGIZED:ENERGIZED-BC2A, 125V DC BUS 2A - This component, 125V DC Bus 2A, requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges HVAC Support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-HVAC-002	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - This component, Charging Pump 2A, requires HVAC support to remain functional. Charging via the CVCS system is required to maintain RCS Inventory for makeup. Charging via Pump 2A is sought after in this fire area. A loss of the Pump 2A cooler could result from fire induced circuit failure. Without HVAC support, the pump may not be available. Failure to establish charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-HVAC-003	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - This component, MDAFW Pump 2A, requires HVAC support to remain functional. The Auxiliary Feed water Pump 2A is required to supply the Steam Generators with High Pressure Feed water in order to remove Decay Heat Removal. Fire induced control circuit damage could render the AFW Pump 2A Cooler unavailable in this fire area. A loss of HVAC to the Aux Feed water Pump Room could potentially render the pump unavailable. Failure to ensure availability of the Aux Feed water Pump challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-IA-001	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of instrument air will result in the valve failing in the closed position. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-IA-002	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air will result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-IA-003	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2B ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-020-SEP-001	
VFDR	Q2B31L0001A:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. Fire induced control circuit damage could spuriously trip Pressurizer Group A, or prevent its operation. Failure to ensure availability of Pressurizer Group A Heaters could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-002	
VFDR	Q2B41P0001B:ON/OFF, RCP 2B - In order to support a natural circulation cool down, the Reactor Coolant Pumps must be tripped. Fire induced circuit damage could spuriously start the Reactor Coolant Pump 2B. Failure to ensure the Reactor Coolant Pumps are tripped challenges the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-003	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (Aligned Train A) suffers fire induced circuit failure that would prevent remote tripping of the pump. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371A could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-005	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371B could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-006	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Atmospheric relief must be isolated on the secondary side initially. Spurious opening of the Atmospheric Relief Valve PV3371C could result from fire induced circuit failure. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-007	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Since the TDAFW Pump is not credited in this fire area, spurious steam admission to the Pump could result in the pump spuriously starting, and feeding a non-credited steam generator. This could result in an overcooling condition. Fire induced control circuit damage to the steam admission valve HV3235A could result in the valve spuriously opening, thus admitting steam to the TDAFW Pump. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-008	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Since the TDAFW Pump is not credited in this fire area, spurious steam admission to the Pump could result in the pump spuriously starting, and feeding a non-credited steam generator. This could result in an overcooling condition. Fire induced control circuit damage to the steam admission valve HV3235B could result in the valve spuriously opening, thus admitting steam to the TDAFW Pump. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-009	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Spurious start of the charging pumps via spurious load sequencing is credible based on the cable failures in this fire area. A hot short on cable 1VBD5001C could result in a spurious charging pump 2B or 2C start. This could result in an overcharging condition and challenge the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-010	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - Decay Heat removal via SG 2B is desired in this Fire Area. RCS Temperature Indication at the control room (or local control center) is required in order to remove decay heat through the steam generators. A loss of AC power to TE420 and TE423 (from panels 2A and 2B respectively) will prevent indication from being available at the control for RCS Loop 2 Hot and Cold Leg Temperature. The Indicators are supplied from AC Panels 2A and 2B which both suffer power cable failures. These failures challenge the Decay Heat Removal Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-020-SEP-011	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater A, or prevent remote tripping of the load. Furthermore, a loss of power at panel 2B could occur, thereby preventing tripping ability. Failure to secure the Pressurizer Heater A could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-012	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater B, or prevent remote tripping of the load. Furthermore, a loss of power at panel 2E could occur, thereby preventing tripping ability. Failure to secure the Pressurizer Heater B could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-020-SEP-013	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - The Pressurizer Power Relief Valve is required to cycle in order to de-pressurize the RCS System. A loss of the pressurizer control signal from PT445 could prevent re-closure of the valve once the auto-open feature has been actuated. PT445 suffers a loss of AC Power from Process Cabinet C and G in this fire area, and cannot be relied upon to remain non-spurious. An inability to cycle the Pressurizer Power Relief Valve challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-014	
VFDR	Q2E13PT0952:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL III - A loss of AC power to the transmitter PT952 could initiate a spurious SIAS signal, through actuation of a spurious Containment Hi Pressure Signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and possible actuation of the Safety Injection System, which is not credited for Inventory Makeup. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-015	
VFDR	Q2E21LT0112:AVAILABLE:AVAILABLE, VCT LEVEL TRANSMITTER - The Volume Control Tank Outlet Isolation valves must initially remain open to establish a charging lineup before suction is re-aligned to the RWST. A loss of power to the VCT level instruments could initiate a spurious swap over to the RWST. Panel 2A supplies AC power to LT115 and suffers power feed damage. Panel 2C supplies LT112, and suffers upstream power failure, and power cable failure. Furthermore, Process Cabinets C and G are unavailable to provide power to LT112. These failures would isolate the VCT Supply by closing the associated valves. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-020-SEP-016	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Charging via the CVCS system is required to maintain RCS Inventory for makeup. Charging via Pump 2A is sought after in this fire area. Fire induced circuit failure could also prevent operation of the pump remotely, or result in a spurious trip of the pump. Failure to establish charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-017	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (Aligned Train B) and 2C suffer a loss of control power and potential spurious sequencer start that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-018	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. The Valve's modulating capability required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. Fire induced circuit failure could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-019	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - Source Range Instrumentation is required to monitor Reactivity Conditions. A loss of power to Panels 2A and 2B will prevent Source Range Detectors (Channel 1 and 2) from being available, due to power circuit failures. These instrument loops rely upon train A electrical power, which is not demonstrated to be available in this Fire Area. Failure to monitor subcritical conditions challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-020-SEP-020	
VFDR	Q2N11PT0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - A loss of AC power to the transmitter PT476 from loop power cabinet D and H could initiate a spurious SIAS signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and possible actuation of the Safety Injection System, which is not credited for Inventory Makeup. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-021	
VFDR	Q2N11PT0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C DISCHARGE PRESSURE - A loss of AC power to the transmitter PT496 from Process Cabinets D and H could initiate a spurious SIAS signal. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, and possible actuation of the Safety Injection System, which is not credited for Inventory Makeup. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-022	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-020 - Aux Building	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The Atmospheric Relief Valves are required to modulate in order to relieve steam to the atmosphere and facilitate the removal of decay heat. Decay Heat Removal via SG2B is desired in this fire area. Fire induced circuit failure could cause valve ARV PV3371B to fail closed or spuriously open. Furthermore, This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-023	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - The Motor Driven Auxiliary Feed water Pump 2A is required to supply the Steam Generators with High Pressure Feed water in order to remove Decay Heat Removal. Fire induced circuit failure of the pump could prevent its operation. Failure to ensure availability of the Aux Feed water Pump challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-020-SEP-024	
VFDR	Q2P17P0001C:STANDBY:ON, 2C COMPONENT COOLING WATER PUMP - Component Cooling Water (CCW) is required to support various systems, including CVCS. CCW is used to cool the High Head SI/Charging pumps. The CCW pumps circulate cooling water to support heat exchange and cooling of these components. CCW pumps 2C and 2B (Aligned Train A) suffer fire induced control circuit damage that could result in a failure to remotely operate the pumps and potentially spuriously trip them. Failure to establish CCW will directly impact the ability to support charging and pose a challenge to the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U1 - Aux Building Switchgear Rooms	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2229-U1	2229 Switchgear Room
2233-U1	2233 Switchgear Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-021-U1 - Aux Building Switchgear Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-021-U1 - Aux Building Switchgear Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of carbon dioxide suppression systems will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U1 - Aux Building Switchgear Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U1 - Aux Building Switchgear Rooms		Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-104	Risk Criteria	Required to meet risk criteria.
Detection	2A-104	DID Criteria	Required to meet DID criteria.
Detection	2A-104 [Zone 2233]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-104 [Zone 2233]	Risk Criteria	Required to meet risk criteria.
Detection	2A-104 [Zone 2233]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-28	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-28 [Zone 2233]	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-28 [Zone 2233]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-30	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-30	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-021-U1 - Aux Building Switchgear Rooms NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-021-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	8.85E-08	
Δ LERF	3.04E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U1 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-021-SEP-001	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW to D/G 1B. The valve is normally closed, required closed to prevent cross tie of service water system. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2229-U2	2229 Switchgear Room
2233-U2	2233 Switchgear Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach aux spray} for pressure reduction and performance-based approach Pressurizer Heater Group A for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Performance Goals
2-021-U2 - Aux Building Switchgear Rooms NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2B. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by of diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond Oor Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of carbon dioxide suppression systems will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		Required Fire Protection Systems and Features	
Compliance Basis:			
2-021-U2 - Aux Building Switchgear Rooms		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-104	Risk Criteria	Required to meet risk criteria.
Detection	2A-104	DID Criteria	Required to meet DID criteria.
Detection	2A-104 [2223]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-104 [2223]	Risk Criteria	Required to meet risk criteria.
Detection	2A-104 [2223]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-28	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-28	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-28 [Zone 2233]	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-28 [Zone 2233]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-28 [Zone 2233]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-29	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-29	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-30	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-30	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-30	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to wrap cable 2VYH2C05B, install interposing relay and fuse to protect cable 2VYDG15 J and to replace trip device in panel Q2R42B0001A, breaker LA13; Q2R42B0001B, breaker LB07.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-021-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with specified recovery actions, modification(s), and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	2.88E-07	
Δ LERF	1.11E-08	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained."	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-021-ASSO-001	
VFDR	Q2R15A0006:ENERGIZED:ENERGIZED-EDG1-2A, 4160V SWITCHGEAR BUS 2F - AC power is required to support various safe shutdown components. The Diesel Generator 1-2A can supply Bus 2F, however a potential coordination issue arises due to the cited circuit failures. A fault on those cables concurrent with a loss of DC control power to the respective breakers could result in the DG output breaker tripping due to a lack of coordination. This failure challenges all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-ASSO-002	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Positive Control of the pressurizer Heaters is required in order to accommodate low pressure transients. A loss of power to the Load Center supplying the Pressurizer Heater Group 2A would prevent operation of the Heater. Load Center 2A suffers an associated circuit failure in this area. A potential loss of breaker coordination may exist if control power to a respective load breaker is lost to Breaker EA14, if the associated power cable 2VXE14 P is also faulted. These failures could result in a potential trip of the upstream supply breaker due to a lack of coordination. Failure to achieve positive control of the pressurizer heater group challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-BC-001	
VFDR	Q2E13PT0953:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL IV - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT953 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, or spurious opening of the SI injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-021-BC-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of control power to DC panel 2D, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-BC-003	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of power. An inability to cycle this valve due to a loss of power to DC panel 2D, would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-BC-004	
VFDR	Q2N11PT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT475 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, or spurious opening of the SI injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-BC-005	
VFDR	Q2N11PT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT485 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108, or spurious opening of the SI injection path. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-HVAC-001	
VFDR	Q2R42B0001B:ENERGIZED:ENERGIZED-BC2B, 125V DC BUS 2B - This component, 125V DC Bus 2B (Train B Battery Charger Room Cooler), requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-021-HVAC-002	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, 125V DC Battery 2B (Train B Battery Room Exhaust Fan), requires HVAC support to remain functional. Failure to provide HVAC support challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-021-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-IA-003	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of instrument air would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air will result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-IA-005	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure prevent the ability to control steam generator pressure, and pose a challenge to the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-001	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N12HV3234B:OPEN:OPEN/CLOSED, TDAFWP STEAM SUPPLY WARM-UP ISOLATION - The TDAFW Pump is not credited for use in this fire area. Valve HV3234B provides a bypass path for steam to start the TDAFW Pump. Fire induced control circuit damage to the cited cable could spuriously open this valve. Steam admission could occur to the TDAFW Pump through this valve, and thus spuriously start the pump. Once started, the TDAFW pump could then supply a non-credited Steam Generator and result in an overcooling condition. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-002	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q2N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-003	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q1N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage may prevent the ability to turn pump off, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-021-U2 - Aux Building Switchgear Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. Fire induced control circuit damage could spuriously actuate Pressurizer Heater 2B, or prevent remote tripping of the load. Furthermore a loss of DC control power at panel 2E could prevent tripping of the load. Failure to secure the Pressurizer Heater Group B could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-005	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - An inability to trip a non credited charging pump could result in an overcharging condition, thereby impairing the ability to control the overall cool-down rate. Charging pump 2B (Aligned Train B) and 2C suffers a loss of control power that would prevent remote tripping of the pump and/or potential spurious start of the pump due to fire induced circuit failure. In addition spurious sequencer 2G operation could spuriously start these pumps. Failure to secure B train charging challenges the RCS Inventory Control Nuclear Safety Performance Criterion .This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-021-SEP-006	
VFDR	Q2C11E0004A:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 1 - The Reactor Trip Switchgear is required to remain available in order to provide operator capability to remotely insert the control rods in the reactor vessel to initiate plant shutdown. Fire induced circuit failure that disables both the shunt and under voltage trips, could bypass operator control of the circuitry for both channels of switchgear (1 and 2) thus preventing reactor trip. Failure to initiate Reactor Scram challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U1 - Aux Building Switchgear Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2235-U1	2235 Switchgear Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-023-U1 - Aux Building Switchgear Room Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room OR Plant shutdown is performed from the Hot Shutdown Panel.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room OR Reactor is manually tripped from the Control Room prior to Control Room evacuation.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-023-U1 - Aux Building Switchgear Room Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U1 - Aux Building Switchgear Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U1 - Aux Building Switchgear Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-023-U1 - Aux Building Switchgear Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-31	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-31	Risk Criteria	Required to meet risk criteria.
Detection	2A-31	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-31	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-31	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-023-U1 - Aux Building Switchgear Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-023-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	7.87E-10	
Δ LERF	1.42E-12	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U1 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-023-SEP-001	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW to D/G 1B. The valve is normally closed, required closed to prevent cross tie of service water system. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2235-U2	2235 Switchgear Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV or aux spray} for pressure reduction and Pressurizer Heater Group A for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Performance Goals
2-023-U2 - Aux Building Switchgear Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2B. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with performance-based approach HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables outside of the area of fire suppression activity. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-31	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-31	Risk Criteria	Required to meet risk criteria.
Detection	2A-31	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-31	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-31	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001A, breaker LA13; Q2R42B0001B, breakers LB07, LB14.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-023-U2 - Aux Building Switchgear Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-023-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems and modification(s), the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.66E-08	
Δ LERF	2.17E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-023-ASSO-001	
VFDR	Q2R16B0002:ENERGIZED:ENERGIZED-LC2D, 600V LOAD CENTER 2A NORMAL-EMERGENCY - Positive Control of the pressurizer Heaters is required in order to accommodate low pressure transients. A loss of power to the Load Center supplying the Pressurizer Heater Group 2A could prevent operation of the Heater. Load Center 2A suffers an associated circuit failure in this area. A potential loss of breaker coordination may exist if control power to a respective load breaker is lost to Breaker EA14, if the associated power cable 2VXE14 P is also faulted. These failures could result in a potential trip of the upstream supply breaker due to a lack of coordination. Failure to achieve positive control of the pressurizer heater group challenges the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-001	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - This safe shutdown component requires AC or DC power to perform it's safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. The Pressurizer Heaters are required to increase RCS Pressure by heating Pressurizer Inventory. In order to establish pressure control, the Pressurizer heaters are required off. A loss of control power from panel 2E could prevent remote tripping of the load. Failure to secure the Pressurizer Heater Group B could challenge the RCS Pressure Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-002	
VFDR	Q2E13PT0952:AVAILABLE:AVAILABLE, CONTAINMENT PRESSURE TRANSMITTER PROTECTION CHANNEL III - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT952 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-003	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Charging is required in order to establish RCS Inventory Makeup. A loss of DC control power from Panel 2F to charging pump B could prevent tripping of the pump resulting in an overcharging condition. This failure challenges the RCS Inventory Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-004	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of control power to DC panel 2D, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-005	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. This valve is required to cycle in order to supply CVCS inventory to the pressurizer to de-pressurize via aux-spray, and the valve fails closed on a loss of instrument air. An inability to cycle this valve due to a loss of power to DC panel 2D, would prevent de-pressurization of the RCS via aux-spray. Failure to ensure cycling capability of this valve challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-006	
VFDR	Q2N11PT0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT475 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-BC-007	
VFDR	Q2N11PT0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT485 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-023-BC-008	
VFDR	Q2N11PT0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C DISCHARGE PRESSURE - This safe shutdown component requires AC or DC power to perform its safe shutdown function. Ultimately Battery 2B supplies the DC bus that provides power to the component (Either through an inverter in the case of Vital AC power, or 125V DC control power). The battery charger(s) to this bus is not available in this Fire Area. A loss of AC power to the transmitter PT495 could initiate a spurious SIAS signal. This will not happen until the Battery Endurance time has been exhausted. A spurious SIAS Signal could result in spurious isolation of the charging injection path, due to closure of Valves 8107 and 8108. Failure to establish a charging path challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-HVAC-001	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - This component, Battery 2B (Train B Battery Room Exhaust Fan), requires HVAC support to remain functional. Failure to provide HVAC support to this electrical component challenges various Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-023-IA-001	
VFDR	Q2E21V0243:CLOSED:CLOSED, RCS ALTERNATE CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the alternate charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Alternate Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-023-IA-002	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-IA-003	
VFDR	Q2E21V0245:CLOSED:OPEN/CLOSED, RCS PRESSURIZER AUX SPRAY - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Isolating the normal charging line is necessary in order to obtain a significant pressure gradient in order to de-pressurize the RCS via aux-spray. This valve (the Normal Charging line supply from CVCS) fails open on a loss of instrument air, and hence the necessary pressure gradient will not be sufficient to supply the pressurizer through the aux spray line. Failure to de-pressurize via aux spray challenges the RCS Pressure/Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-IA-004	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Flow control Valve V0347 permits normal charging flow to be injected into the RCS system. Instrument air is required to control the flow and thus charging inventory that is injected into the RCS Cold Legs. A loss of instrument air could result in this valve failing in the open position. Failure to throttle flow to the RCS system challenges the RCS Inventory/Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-023-IA-005	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Atmospheric relief on the secondary side is necessary in order to achieve a controlled cool down rate. Failure to modulate the SG 2B ARV due to a loss of instrument air would cause the valve to fail closed, thereby isolating the secondary side. This failure challenges the Decay Heat Removal Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-SEP-001	
VFDR	Q2N12HV3234B:OPEN:OPEN/CLOSED, TDAFW STEAM SUPPLY WARM-UP ISOLATION - The TDAFW Pump is not credited for use in this fire area. Valve HV3234B provides a bypass path for steam to start the TDAFW Pump. Fire induced control circuit damage to the cited cable could spuriously open this valve. Steam admission could occur to the TDAFW Pump through this valve, and thus spuriously start the pump. Once started, the TDAFW pump could then supply a non-credited Steam Generator and result in an overcooling condition. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-SEP-002	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Spurious start of the charging pump due to sequencer failure is credible. Fire induced circuit failure could simulate a load shed/sequence scenario and start a non-credited charging pump. This could lead to an overcharging condition, and challenge the RCS Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-023-SEP-003	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-023-U2 - Aux Building Switchgear Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2C11E0004A:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 1 - The Reactor Trip Switchgear is required to remain available in order to provide operator capability to remotely insert the control rods in the reactor vessel to initiate plant shutdown. Fire induced circuit failure that disables both the shunt and under voltage trips, could bypass operator control of the circuitry for both channels of switchgear (1 and 2) thus preventing reactor trip. Failure to initiate Reactor Scram challenges the Reactivity Control Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2249-U1	2249 Cable Chase
2252-U1	2252 Cable Chase

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump or swing charging pump via Train A power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-60 [2249,2252]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-60 [2249,2252]	Risk Criteria	Required to meet risk criteria.
Detection	2A-60 [2249,2252]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-60 [2249,2252]	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252		Fire Risk Evaluation
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Title	FRE for Fire Area 2-030-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.95E-08	
Δ LERF	6.67E-11	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U1 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-030-SEP-001	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW to D/G 2B. The valve is normally closed, required closed to prevent cross tie of service water system. Fire induced cable damage can cause spurious valve operation and prevent adequate service water support to the diesel generator, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2249-U2	2249 Cable Chase
2252-U2	2252 Cable Chase

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group A for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252 Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2. 4. RCS Temperature - RCS Loop 1/Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment.	
7.2 Vital Auxiliaries – Service Water	Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252		Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-60 [2249,2252]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-60 [2249,2252]	Risk Criteria	Required to meet risk criteria.
Detection	2A-60 [2249,2252]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-60 [2249,2252]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-60 [2249,2252]	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001B, breaker LB07.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252 NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title Summary	FRE for Fire Area 2-030-U2 A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the specified recovery actions, modification(s), and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	8.85E-08	
Δ LERF	1.24E-09	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-030-IA-001	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q1B31V0053 - Pressurizer PORV. The valve is normally closed, required to cycle to provide positive pressure control. Fire induced damage to instrument air components may result in spuriously closing the valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-030-IA-002	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The valve is normally modulated, required modulated to provide makeup. Fire induced instrument air failures can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-IA-003	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-030-IA-004	
VFDR	Q2N23HV3228B:OPEN:THROTTLED TDAFW SUPPLY TO STEAM GENERATOR 2B - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N23HV3228B - TDAFW Supply to Steam Generator 1B. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage from instrument air component failures will spuriously open valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-IA-005	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N23HV3228C - TDAFW Supply to Steam Generator 1C. The valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced damage from instrument air component failures will spuriously open valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-001	
VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - Q2B31L0001B - Pressurizer Heater Group 2B Distribution Panel, Q2R41L0001E - 125Vdc Distribution Panel 2E. The heater is normally available, required off and panel normally energized, required energized to prevent pressure transient. Fire induced damage due to cascading power failures result in failure prevent heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-030-SEP-002	
VFDR	Q2R41L0001E:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2E - Q2B31L0001B - Pressurizer Heater Group 2B Distribution Panel, Q2R41L0001E - 125Vdc Distribution Panel 2E. The heater is normally available, required off and panel normally energized, required energized to prevent pressure transient. Fire induced damage due to cascading power failures result in failure prevent heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-003	
VFDR	N2B31PT0445:AVAILABLE:AVAILABLE, SAFETY INJECTION PRESSURIZER TANK PRESSURE TRANSMITTER - Q2B31V0053 - Pressurizer PORV; N2B31PT0455 - Pressurizer Pressure Transmitter Protection Channel 1. The valve is normally closed, required to cycle to provide positive RCS pressure control. The transmitter provides a control signal to open valve on high pressure. On loss of power to transmitter, it is assumed that a spurious signal is generated to open valve. Fire induced damage to transmitter power supply may result in spuriously opening the valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-004	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - Q2B31V0053 - Pressurizer PORV; N2B31PT0455 - Pressurizer Pressure Transmitter Protection Channel 1. The valve is normally closed, required to cycle to provide positive RCS pressure control. The transmitter provides a control signal to open valve on high pressure. On loss of power to transmitter, it is assumed that a spurious signal is generated to open valve. Fire induced damage to transmitter power supply may result in spuriously opening the valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-030-SEP-007	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q1E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-008	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q1E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-009	
VFDR	Q2R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2B - Q2E21P0002A - 2A Charging Pump; Q1E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-010	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Q2E21P0002A - 2A Charging Pump; Q1E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-011	
VFDR	Q2E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0258 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-012	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-013	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-030-U2 - Aux Building Cable Chase, Rooms 2249 & 2252	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-030-SEP-014	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2250-U1	2250 Cable Chase
2251-U1	2251 Cable Chase

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room OR Plant shutdown is performed from the Hot Shutdown Panel.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room OR Reactor is manually tripped from the Control Room prior to Control Room evacuation.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251 Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, • The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-61	DID Criteria	Required to meet DID criteria.
Detection	2A-61 [2251]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-61 [2251]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-61	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-61 [2251]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-61 [2251]	DID Criteria	Required to meet DID criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-031-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	Epsilon	
Δ LERF	Epsilon	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U1 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-031-SEP-001	
VFDR	Q1R16B0508:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1R/2R - Q1R16B0508 - 600V Load Center 1R/2R. The load center is normally energized, required energized to support EDG 1-2A. Fire induced cable damage can disable the diesel generator to load onto Bus 1F and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-031-SEP-002	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1S - Q1R17B0509 - Motor Control Center 1S. The MCC is normally energized, required energized to support EDG 1-2A. Fire induced cable damage can disable the diesel generator to load onto Bus 1F and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-031-SEP-003	
VFDR	Q1R43E0501A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1H - Q1R43E0501A - Sequencer Bus 1H. The sequencer is normally available, required available to support service water to pond for HVAC support of Bus 1F. The loss of sequencer can disable service water support for diesel generator, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2250-U2	2250 Cable Chase
2251-U2	2251 Cable Chase

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251 Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Performance Goals
2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251 NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in the area and adjacent areas. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:		2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251		Required Fire Protection Systems and Features
Compliance Basis:		NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Required FP System(s)/Feature(s)	Description	Required By	Comments	
Detection	2A-61	DID Criteria	Required to meet DID criteria.	
Detection	2A-61 [2251]	EEEE/LA	Required to support a fire area boundary evaluation.	
Detection	2A-61 [2251]	DID Criteria	Required to meet DID criteria.	
Water Suppression	2A-61	DID Criteria	Required to meet DID criteria.	
Water Suppression	2A-61 [2251]	EEEE/LA	Required to support a fire area boundary evaluation.	
Water Suppression	2A-61 [2251]	DID Criteria	Required to meet DID criteria.	
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.	
Modifications		Risk Criteria	Modification to replace trip device in panel Q2R42B0001A, breaker LA13.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-031-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the implementation of specified recovery actions, modification(s), and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.41E-08	
Δ LERF	1.23E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-031-IA-001	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2B31V0061 - Pressurizer PORV. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-031-SEP-001	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-002	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced damage due to cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-031-SEP-003	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A - Pressurizer Heater Group 2A Distribution Panel, Q2R41L0001B - 125Vdc Distribution Panel 2B. The heater is normally available, required off and panel normally energized, required energized to prevent pressure transient. Fire induced damage due to cascading power failures result in failure prevent heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-004	
VFDR	Q2R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2B - Q2B31L0001A - Pressurizer Heater Group 2A Distribution Panel, Q2R41L0001B - 125Vdc Distribution Panel 2B. The heater is normally available, required off and panel normally energized, required energized to prevent pressure transient. Fire induced damage due to cascading power failures result in failure prevent heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-005	
VFDR	Q2E11V0025A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-006	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11V0026A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-010	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-011	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-012	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R41L0001B:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2B - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-013	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 2F - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-014	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q1E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage to instruments generate SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-015	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-016	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q2E21V0347 - Charging Flow Control Valve. The valve is normally throttled, required to throttle to maintain RCS inventory. Fire induced damage due to instrument air components and cascading power supply failure prevent ability to maintain reactivity and inventory control, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-017	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-018	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

VFDR	<p>Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.</p>
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Disposition	<p>This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.</p>
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VFDR ID	U2-2-031-SEP-019
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VFDR	<p>Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.</p>
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Disposition	<p>This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.</p>
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VFDR ID	U2-2-031-SEP-020
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VFDR	<p>Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.</p>
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Disposition	<p>This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.</p>
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VFDR ID	U2-2-031-SEP-021
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Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-022	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-031-SEP-023	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-031-SEP-024	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R21L0001A:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 2A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-031-SEP-025	
VFDR	Q2R21L0001B:ENERGIZED:ENERGIZED, 120V VITAL AC INSTRUMENTATION PANEL 2B - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-031-SEP-026	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-027	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q2N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-028	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q2N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-029	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-030	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-031	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-032	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-031-SEP-033	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-031-U2 - Aux Building Cable Chase, Rooms 2250 & 2251	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - Q2B41P0001A - RCP 2A. The pump is normally on, required off to prevent RCS inventory losses and meet thermo hydraulic concerns. Fire induced cable damage may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2317	2317 Penetration Room Filtration System Equipment Room
2334	2334 Electrical Penetration Room, Train B

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump via Train A power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train A charging pump, or swing charging pump via Train A power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> Unit 2: Normal letdown is isolated using orifice isolation valves. Excess letdown is performance-based approach isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and performance-based approach Train B PORV or block valve. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR outboard isolation valve. Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by performance-based approach ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and Pressurizer Heater Group A for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A/2B. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1, RCS wide range pressure for Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1. 4. RCS Temperature - Performance-based approach RCS Loop 1/Loop 2 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is 	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
	monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A. 2. 4.16 kV and 600 V power is supplied by Train A distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<ul style="list-style-type: none"> Unit 2: Train A service water is provided with two service water pumps in service recirculating to the pond or Train A service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 1: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries Component Cooling Water	<ul style="list-style-type: none"> Unit 2: Train A component cooling water is provided with non-essential loads isolated. Unit 1: Train A/Train B component cooling water is provided with non-essential loads isolated. 	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Engineering Evaluation ID SM-C051326701-006 Identify Regulatory Fire Barriers
Revision 3

Inactive No

Functionally Equivalent No

Adequate for the Hazard Yes

Summary Purpose:

This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.

Bases for Acceptability:

- The fire areas, fire zones and rooms on both sides of the barrier were identified,
- The construction of the boundary and the potential issue with the element in question was described,
- The fire hazards and fire protection features on both sides of the barrier were described,
- Elements with construction features equal to 3-hr boundaries were credited as such,
- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-034 - Train B Electrical Pen Room & Filtration System		Required Fire Protection Systems and Features	
Compliance Basis: Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-46	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-46	Risk Criteria	Required to meet risk criteria.
Detection	2A-46	DID Criteria	Required to meet DID criteria.
Detection	2A-48	Risk Criteria	Required to meet risk criteria.
Detection	2A-48	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-45	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-45	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to seal elec. pen. cabinets 2G and 2F, MCC 2V, 2B H2 Analyzer, transfer relay cabinet, and power supply panel and to replace trip device in panel Q2R42B0001A, breakers LA08 and LA20.

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-034	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification(s) and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	2.91E-07	
Δ LERF	3.00E-08	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-034-IA-001	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. The valve is normally modulated, required modulated to provide makeup. Fire induced damage to instrument air components can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-001	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - The RCS Loop 1 indicators are normally available, only one set of the hot and cold leg indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-002	
VFDR	N2B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - The RCS Loop 2 indicators are normally available, only one set of the hot and cold leg indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-034-SEP-003	
VFDR	N2B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-004	
VFDR	N2B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-005	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-006	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2B13HV0003:CLOSED:CLOSED, REACTOR VESSEL HEAD VENT - Q2B13HV0003 - Reactor Vessel Head Vent and Q2B13HV0004 - Reactor Vessel Head Vent. The valves are normally closed, required closed to isolate reactor head vent leakage path. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-007	
VFDR	Q2B13HV0004:CLOSED:CLOSED, REACTOR VESSEL HEAD VENT - Q2B13HV0003 - Reactor Vessel Head Vent and Q2B13HV0004 - Reactor Vessel Head Vent. The valves are normally closed, required closed to isolate reactor head vent leakage path. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-009	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - The pump is normally running required off. Fire induced cable damage can prevent ability to trip pump, and a challenge to Reactor Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-010	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E13V0003B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003B - 2B CS Pump Containment Sump Suction Isolation; Q2E13V0004B - 2B CS Pump Containment Sump Suction Isolation. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage may spuriously open valve to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-011	
VFDR	Q2E13V0004B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003B - 2B CS Pump Containment Sump Suction Isolation; Q2E13V0004B - 2B CS Pump Containment Sump Suction Isolation. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage may spuriously open valve to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-012	
VFDR	Q2E16H0009:STANDBY:ON, 600V LOAD CENTER 2D ROOM AIR COOLER - The cooler is normally in standby, required on to support electrical switchgear. Fire induced cable damage may prevent equipment from functioning properly due inadequate environmental concerns, and a challenge to the all Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-013	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0063:CLOSED:CLOSED, CHARGING PUMP RECIRC TO RCS COLD LEGS - The valve is normally closed, required closed to prevent pump run out of charging pump. Fire induced cable damage may spuriously open valve to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-014	
VFDR	Q2E21V0183:CLOSED:CLOSED, EXCESS LETDOWN HX DISCHARGE - Q2E21V0247 -Excess Letdown Isolation; Q2E21V0250 -Excess Letdown Divert Valve; Q2E21V0246 - Excess Letdown Isolation Valve; Q2E21V0183 - Excess Letdown HX Discharge. The valves are normally closed, required closed to isolate excess letdown. Fire induced cable damage may spuriously operate both valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-015	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - The valve is normally closed, required closed to control RCS pressure. Fire induced cable damage will fail valve and depressurize RCS, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-016	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0246:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0247 -Excess Letdown Isolation; Q2E21V0250 - Excess Letdown Divert Valve; Q2E21V0246 - Excess Letdown Isolation Valve; Q2E21V0183 - Excess Letdown HX Discharge. The valves are normally closed, required closed to isolate excess letdown. Fire induced cable damage may spuriously operate both valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-017	
VFDR	Q2E21V0247:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0247 -Excess Letdown Isolation; Q2E21V0250 - Excess Letdown Divert Valve; Q2E21V0246 - Excess Letdown Isolation Valve; Q2E21V0183 - Excess Letdown HX Discharge. The valves are normally closed, required closed to isolate excess letdown. Fire induced cable damage may spuriously operate both valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-018	
VFDR	Q2E21V0250:TO VCT:TO VCT, EXCESS LETDOWN DIVERT VALVE - Q2E21V0247 -Excess Letdown Isolation; Q2E21V0250 -Excess Letdown Divert Valve; Q2E21V0246 - Excess Letdown Isolation Valve; Q2E21V0183 - Excess Letdown HX Discharge. The valves are normally closed, required closed to isolate excess letdown. Fire induced cable damage may spuriously operate both valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-019	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0259A:OPEN:OPEN, 2A CHARGING PUMP MINIFLOW ISOLATION - The valve is normally open, required open to prevent damage to the charging pump. Fire induced cable damage can cause spurious valve operation damage credited charging pumps, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-020	
VFDR	Q2E21V0259B:OPEN:OPEN, 2B CHARGING PUMP MINIFLOW ISOLATION - The valve is normally open, required open to prevent damage to the charging pump. Fire induced cable damage can cause spurious valve operation damage credited charging pumps, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-021	
VFDR	Q2N23V0025B:OPEN:OPEN, MDAFWP TO 2B STEAM GENERATOR ISOLATION - The valve is normally open, required to open to supply AFW to Steam Generator. Fire induced cable damage may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-022	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N23V0025E:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - The valve is normally open, required to open to supply AFW to Steam Generator. Fire induced cable damage may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-023	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - Q2P15SV3103 - Pressurizer Liquid Solenoid Valve and Q2P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-024	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - Q2P15SV3104 - Pressurizer Steam Solenoid Valve and Q2P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-025	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2P15SV3331:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM TO GFFD ISOLATION - Q2P15SV3104 - Pressurizer Steam Solenoid Valve and Q2P15SV3331 - Pressurizer Steam Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-026	
VFDR	Q2P15SV3332:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID ISOLATION - Q2P15SV3103 - Pressurizer Liquid Solenoid Valve and Q2P15SV3332 - Pressurizer Liquid Sample Isolation Valve. These valves are normally closed, required closed to isolate Pressurizer sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-027	
VFDR	Q2P15SV3333:CLOSED:OPEN/CLOSED, RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q2P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-034-SEP-028	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - Reactor Coolant Hot Leg Solenoid Valve and Q2P15SV3333 - Reactor Coolant Hot Leg Sample Isolation Solenoid. These valves are normally closed, required closed to isolate hot leg sample line. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).
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VFDR ID	U2-2-034-SEP-030
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VFDR	Q2B31L0001B:ON/OFF:ON/OFF, PRESSURIZER HEATER GROUP 2B DISTRIBUTION PANEL - The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage and control power supply failure can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-034-SEP-031
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VFDR	N2B31PT0445:AVAILABLE:AVAILABLE, SAFETY INJECTION PRESSURIZER TANK PRESSURE TRANSMITTER - Q2B31V0053 - Pressurizer Power Operated Relief; N2B31PT0445 - Safety Injection Pressurizer Tank Pressure Transmitter. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components and transmitter signal prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-034-SEP-032
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Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - Q2B31V0053 - Pressurizer Power Operated Relief; N2B31PT0445 - Safety Injection Pressurizer Tank Pressure Transmitter. The valve is normally closed, required to cycle to control RCS pressure. Fire induced damage due to instrument air components and transmitter signal prevent the ability to control RCS pressure, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-033	
VFDR	Q2E11V0025B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025B - Containment Sump to 2B RHR Pump; Q2E11V0026B - Containment Sump to 2B RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-034	
VFDR	Q2E11V0026B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP - Q2E11V0025B - Containment Sump to 2B RHR Pump; Q2E11V0026B - Containment Sump to 2B RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-037	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E. The pump is normally in Standby, required off, required off, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-038	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E. The pump is normally in Standby, required off, required off, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-039	
VFDR	Q2R41L0001E:ENERGIZED:ENERGIZED, 125V DC DISTRIBUTION PANEL 2E - Q2E21P0002B - 2B Charging Pump; Q2E21P0002C - 2C Charging Pump; Q2R41L0001E - 125Vdc Distribution Panel 2E. The pump is normally in Standby, required off, required off, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-040	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0016B:CLOSED:CLOSED-TRAIN B, HHSI TO RCS COLD LEG ISOLATION - The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage generates SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-041	
VFDR	Q2E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage and spurious SIAS signal generated by instrument failure can preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-042	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - The valve is normally open, required to open to maintain RCS inventory. Fire induced damage to instruments generate a spurious SIAS signal to close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-043	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced cable damage to Q2E21V0376A and cascading power failures to instruments cabinets power supplies generate SIAS and spurious VCT level spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-044	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valves are normally open, required open to supply VCT to charging pump. Fire induced cable damage to Q2E21V0376B and cascading power failures to instruments cabinets power supplies generate SIAS and spurious VCT level spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-045	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - The valve is normally closed, required closed to control pressure. Fire induced cable damage prevent ability to adequately control RCS pressure control, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-046	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump. The pumps are normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-047	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump. The pumps are normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-048	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required modulate to control steam generator pressure. Fire induced cable damage, instrument air components failures and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-049	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - The valve is normally closed, required modulate to control steam generator pressure. Fire induced cable damage, instrument air components failures and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-050	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instruments generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-051	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instruments generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-052	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 1A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-053	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-054	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-034 - Train B Electrical Pen Room & Filtration System	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-034-SEP-055	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-056	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-034-SEP-057	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced cable damage, instrument air components failures, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2333	2333 Electrical Penetration Room, Train A
2347	2347 Electrical Penetration Room

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train B charging pump, or swing charging pump via Train B power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	<ul style="list-style-type: none"> Unit 2: Normal letdown is isolated using performance-based approach orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using performance-based approach Train A PORV or block valve and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve. Unit 1: Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying, deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train B MDAFW pump Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	<ul style="list-style-type: none"> Unit 2: Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. Unit 1: Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated. 	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers	
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none">• The fire areas, fire zones and rooms on both sides of the barrier were identified,• The construction of the boundary and the potential issue with the element in question was described,• The fire hazards and fire protection features on both sides of the barrier were described,• Elements with construction features equal to 3-hr boundaries were credited as such,• The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Required Fire Protection Systems and Features
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
	Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-47	Risk Criteria	Required to meet risk criteria.
Detection	2A-47	DID Criteria	Required to meet DID criteria.
Detection	2A-47 [2333]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-47 [2333]	Risk Criteria	Required to meet risk criteria.
Detection	2A-47 [2333]	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to seal 2AH2 Analyzer, MCC 2U, and power supply panel to prevent fire propagation outside of ignition source.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-035	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the modification to seal 2AH2 analyzer and power supply panel and the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	5.62E-08	
Δ LERF	5.09E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-035-IA-001	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2B31V0061 - Pressurizer PORV. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-001	
VFDR	Q2B13HV0001:CLOSED:CLOSED, REACTOR VESSEL HEAD VENT - Q2B13HV0001 - Reactor Vessel Head Vent and Q2B13HV0002 - Reactor Vessel Head Vent. The valve is normally closed, required closed to isolate reactor head vent leakage path. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-002	
VFDR	Q2B13HV0002:CLOSED:CLOSED, REACTOR VESSEL HEAD VENT - Q2B13HV0001 - Reactor Vessel Head Vent and Q2B13HV0002 - Reactor Vessel Head Vent. The valve is normally closed, required closed to isolate reactor head vent leakage path. Fire induced cable damage to both valves may spuriously operate valve, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-035-SEP-003	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - Q2B31V0027A - PORV Block Valve and Q2B31V0053 - Pressurizer Power Operated Relief; The normally open PORV isolation valve and normally closed PORV valves required closed to control RCS pressure transient. Fire induced cable damage may result in spuriously opening of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-004	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - Q2B41P0001A - RCP 2A. The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-005	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - Q2B41P0001C - RCP 2C. The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-006	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E13V0003A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003A - 2A CS Pump Containment Sump Suction Isolation; Q2E13V0004A - 2A CS Pump Containment Sump Suction Isolation. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage may spuriously open valve to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-007	
VFDR	Q2E13V0004A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003A - 2A CS Pump Containment Sump Suction Isolation; Q2E13V0004A - 2A CS Pump Containment Sump Suction Isolation. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage may spuriously open valve to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-008	
VFDR	Q2E21V0265:OPEN:OPEN, CHARGING PUMPS MINIFLOW ISOLATION - Q2E21V0265 - Charging Pump Miniflow Isolation. The valve is normally open, required open for min flow requirement for charging pump. Fire induced cable damage may spuriously close valve cause failure of charging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-009	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N23V0025A:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - Q2N23V0025A - MDAFWP to 2A Steam Generator Isolation. The valve is normally open, required to open to supply AFW to Steam Generator. Fire induced cable damage may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-010	
VFDR	Q2N23V0025F:OPEN:OPEN, MDAFW ISOLATION TO 2C STEAM GENERATOR MOV3764F - Q2N23V0025F - MDAFWP Isolation to 2C Steam Generator MOV3764F. The valve is normally open, required to open to supply AFW to Steam Generator. Fire induced cable damage may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-011	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage and cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-012	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 1 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage and cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-035-SEP-013	
VFDR	N2B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage and cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-014	
VFDR	N2B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TR-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage and cascading power failures result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-035-SEP-015	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A - Pressurizer Heater Group 2A Distribution Panel, Q2R41L0001B - 125Vdc Distribution Panel 2B. The heater is normally available, required off and panel normally energized, required energized to prevent pressure transient. Fire induced cable damage and cascading power failures result in failure prevent heater operation, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-016	
VFDR	Q2B31V0027A:OPEN:OPEN/CLOSED, PORV BLOCK VALVE - Q2B31V0027A - PORV Block Valve and Q2B31V0053 - Pressurizer Power Operated Relief; The normally open PORV isolation valve and normally closed PORV valves required closed to control RCS pressure transient. Fire induced cable damage may result in spuriously opening of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-017	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-035-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E11V0025A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-019	
VFDR	Q2E11V0026A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced cable damage can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-022	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B. The pump is normally in Standby, required off, required off, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-023	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B. The pump is normally in Standby, required off, required off, and panel normally energized, required energized to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-024	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced cable damage and cascading power failures may generate a SIAS to cause a failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-025	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced cable damage and spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-026	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q2E21V0347 - Charging Flow Control Valve. The valve is normally throttled, required to throttle to maintain RCS inventory. Fire induced damage due to instrument air components and cascading power supply failure prevent ability to maintain reactivity and inventory control, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-027	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage to Q2E21V0376A and cascading power failures to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-028	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced cable damage to Q2E21V0376A and cascading power failures to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-029	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0253A:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 45 GPM - Q2E21V0253A/B/C -Letdown Orifice Isolation; Q2E21V0367 - Letdown Line Isolation; Q2E21V0368 - Letdown Line Isolation. The valves are normally open, with either one of the letdown line isolation valves or all the orifice valves required closed to isolate letdown. Fire induced cable damage may spuriously operate all valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-030	
VFDR	Q2E21V0253B:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 60 GPM - Q2E21V0253A/B/C -Letdown Orifice Isolation; Q2E21V0367 - Letdown Line Isolation; Q2E21V0368 - Letdown Line Isolation. The valves are normally open, with either one of the letdown line isolation valves or all the orifice valves required closed to isolate letdown. Fire induced cable damage may spuriously operate all valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-031	
VFDR	Q2E21V0253C:THROTTLED:MODULATE, LETDOWN ORIFICE ISOLATION 60 GPM - Q2E21V0253A/B/C -Letdown Orifice Isolation; Q2E21V0367 - Letdown Line Isolation; Q2E21V0368 - Letdown Line Isolation. The valves are normally open, with either one of the letdown line isolation valves or all the orifice valves required closed to isolate letdown. Fire induced cable damage may spuriously operate all valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-032	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E21V0367:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Q2E21V0253A/B/C -Letdown Orifice Isolation; Q2E21V0367 - Letdown Line Isolation; Q2E21V0368 - Letdown Line Isolation. The valves are normally open, with either one of the letdown line isolation valves or all the orifice valves required closed to isolate letdown. Fire induced cable damage may spuriously operate all valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-033	
VFDR	Q2E21V0368:OPEN:OPEN/CLOSED, LETDOWN LINE ISOLATION - Q2E21V0253A/B/C -Letdown Orifice Isolation; Q2E21V0367 - Letdown Line Isolation; Q2E21V0368 - Letdown Line Isolation. The valves are normally open, with either one of the letdown line isolation valves or all the orifice valves required closed to isolate letdown. Fire induced cable damage may spuriously operate all valves to cause a loss of RCS inventory, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-034	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-035	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced damage generates a SIAS signal may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-036	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-037	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q2N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-038	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q2N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-039	
VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q2N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-040	
VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2A - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805; Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-041	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-042	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-043	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overflow. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-035 - Train A Electrical Pen Rooms	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-035-SEP-044	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-035-SEP-045	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off; valve is normally open required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced damage to instrument air components, cascading loss of power to TDAFW UPS and spurious instrument signals on loss of battery may prevent the ability to turn pump off or close valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Fire Area Definition
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Fire Zone ID	Description
2349	2349 Pits for New Fuel Storage Racks
2350	2350 Pits for New Fuel Storage Racks
2459	2459 New Fuel Storage Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	<ul style="list-style-type: none"> Unit 2: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump or swing charging pump aligned to Train A power. Unit 1: Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power. 	
3.1 RCS Inventory Control - RCS Makeup	<ul style="list-style-type: none"> Unit 2: RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST. Unit 1: RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST. 	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, letdown isolation valve or letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	<ul style="list-style-type: none"> Unit 2: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. Unit 1: Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Performance Goal	Method of Accomplishment	Comments
4.1 RCS Pressure Control - Pressure Transient	<ul style="list-style-type: none"> Unit 2: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. Unit 1: Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups. 	
4.2 RCS Pressure Control - Positive Pressure Control	<ul style="list-style-type: none"> Unit 2: Positive control of RCS pressure is accomplished with Train A/Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. Unit 1: Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase. 	
5 Decay Heat Removal	<ul style="list-style-type: none"> Unit 2: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump or TDAFW pump supplying Steam Generator 2A/2B/2C. Main feed is isolated to prevent uncontrolled cooldown. Unit 1: Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown. 	
6 Process Monitoring	<ul style="list-style-type: none"> Unit 2: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored. Unit 1: 1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored. 	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Performance Goals
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries Electrical	<ul style="list-style-type: none"> Unit 2: 1. Electrical power is supplied by off-site power via SUT 2A/SUT 2B, diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. Unit 1: 1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment. 	
7.2 Vital Auxiliaries Service Water	Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Engineering Evaluations
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	

Engineering Evaluation ID	SM-C051326701-006 Identify Regulatory Fire Barriers
Revision	3

Inactive	No
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Functionally Equivalent	No
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Adequate for the Hazard	Yes
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Summary	Purpose:
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This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.

Bases for Acceptability:

- The fire areas, fire zones and rooms on both sides of the barrier were identified,
- The construction of the boundary and the potential issue with the element in question was described,
- The fire hazards and fire protection features on both sides of the barrier were described,
- Elements with construction features equal to 3-hr boundaries were credited as such,
- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	Fire Risk Evaluation
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
Title	FRE for Fire Area 2-039	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	5.16E-11	
Δ LERF	1.24E-14	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, no additional DID features were identified.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-039-IA-001	
VFDR	Q2B31V0053:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2B31V0053 - Pressurizer Power Operated Relief. The valve is normally closed, required modulated to control pressure. Fire induced damage to instrument air components can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-039-IA-002	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2B31V0061 - Pressurizer Power Operated Relief. The valve is normally closed, required modulated to control pressure. Fire induced damage to instrument air components can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-039-IA-003	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2E21V0347 - Charging Flow Control Valve. The valve is normally modulated, required modulated to provide makeup. Fire induced damage to instrument air components can prevent makeup, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-039 - Fuel Storage & Storage Rack Pits	VFDRs
Compliance Basis:	Unit 2: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions Unit 1: NFPA 805, Section 4.2.3 Deterministic Approach	
VFDR ID	U2-2-039-IA-004	
VFDR	Q2N11PV3371A:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N11PV3371A - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-039-IA-005	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-039-IA-006	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components failure prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2318-U1	2318 Cable Spreading Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-040-U1 - Cable Spreading Room Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train A charging pump, Train B charging pump or swing charging pump via Train A/Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump, Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG1-2A/EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Performance-based approach Train A/Train B service water is provided with two service water pumps in service recirculating to the pond or Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by performance-based approach Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of the manual carbon dioxide suppression system will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Engineering Evaluations
2-040-U1 - Cable Spreading Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID Revision	SM-C051326701-006 Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:
Compliance Basis:

2-040-U1 - Cable Spreading Room
NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions

Engineering Evaluations

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	Required Fire Protection Systems and Features
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-43	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-43	Risk Criteria	Required to meet risk criteria.
Detection	2A-43	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-43	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-040-U1 - Cable Spreading Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-040-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the installed detection system, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.11E-09	
Δ LERF	2.45E-12	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-040-SEP-001	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW to D/G 2B. This normally closed, required closed valve provides unit separation by isolating the cross connect header to Unit 2. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in cross connecting service water headers of both units support will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-002	
VFDR	Q1R16B0506:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1K/2K - Q1R16B0506 - 600V Load Center 1K/2K. This normally energized, required energized load center provides power to shared components for SW support. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SW support and will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-003	
VFDR	Q1R16B0507:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1L/2L - Q1R16B0507 - 600V Load Center 1L/2L. This normally energized, required energized load center provides power to shared components for HVAC support in the SWIS building. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SWIS HVAC support will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-004	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R16B0508:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1R/2R - Q1R16B0508 - 600V Load Center 1R/2R. This normally energized, required energized load center provides power to shared components for SW support. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SW support and will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-005	
VFDR	Q1R17B0505:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1L - Q1R17B0505 - Motor Control Center 1L. This normally energized, required energized motor control center provides power to shared components for HVAC support in the SWIS building. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SWIS HVAC support will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-006	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1S - Q1R17B0509 - Motor Control Center 1S. This normally energized, required energized motor control center provides power to shared components for SW support. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SW support and will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-007	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0501A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1H - Q1R43E0501A - Sequencer Bus 1H. This normally available, required available sequencer provides power to shared components for SW support. Unit 2 is using alternate shutdown procedure to shutdown with an assumed loss of offsite power. Unit 1 is using offsite power. Fire induced cable damage may result in loss of SW support and will disable shutdown of both units, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-008	
VFDR	QSR17B0006:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1F - QSR17B0006 - Motor Control Center 1F. The MCC is normally energized, required energized to provide control room HVAC. Fire induced cable damage can disable MCC, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-040-SEP-009	
VFDR	QSR17B0007:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1G - QSR17B0007 - Motor Control Center 1G. The MCC is normally energized, required energized to provide control room HVAC. Fire induced cable damage can disable MCC, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-040-SEP-010	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	QSV49K0001A:STANDBY:ON, CONTROL ROOM PACKAGE A/C BLOWER UNIT A - QSV49K0001A - Control Room A/C Blower Unit A. The blower is normally in standby, required on to provide control room HVAC. Fire induced cable damage can disable blower, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-040-SEP-011	
VFDR	QSV49K0001B:STANDBY:ON, CONTROL ROOM PACKAGE A/C BLOWER UNIT B - QSV49K0001B - Control Room A/C Blower Unit B. The blower is normally in standby, required on to provide control room HVAC. Fire induced cable damage can disable blower, and a challenge to vital auxiliaries support for primary control station habitability for all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-040-SEP-012	
VFDR	QSP16V0507:OPEN:OPEN, SW TO POND EAST HEADER ISOLATION - This valve or the wet pit discharge valve must be open to provide return path for service water. Fire induced circuit failure to valve QSP16V0507 and QSP16V0505 could result in spurious isolation of return line. This failure challenges the Vital Auxiliaries Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-040-SEP-013	
VFDR	QSP16V0508:OPEN:OPEN, SW TO POND EAST HEADER ISOLATION - This valve or the wet pit discharge valve must be open to provide return path for service water. Fire induced circuit failure to valve QSP16V0508 and QSP16V0506 could result in spurious isolation of return line. This failure challenges the Vital Auxiliaries Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U1 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2318-U2	2318 Cable Spreading Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-040-U2 - Cable Spreading Room Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Hot Shutdown Panel.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room prior to Control Room evacuation.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by {isolating the VCT / stopping the reactor makeup water pumps} to prevent boron dilution and by charging borated water from the RWST using {Train A charging pump / Train B charging pump / swing charging pump aligned to Train A / Train B power}.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train A charging pump or swing charging pump via Train A power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs.CCW to RCP thermal barriers are isolated using the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring the Loop 1 and Loop 2 RCPs are shut off.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train A MDAFW pump supplying Steam Generator 2A.	
6 Process Monitoring	Essential processes are monitored by dedicated instruments at the hot shutdown panel.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG1-2A/EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train A/Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train A/Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of the manual carbon dioxide suppression system will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-040-U2 - Cable Spreading Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Engineering Evaluations
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID Revision	SM-C051326701-006 Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-040-U2 - Cable Spreading Room		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-43	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-43	Risk Criteria	Required to meet risk criteria.
Detection	2A-43	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-43	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-43	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Procedures / Guidance		DID Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet DID criteria.
Modifications		Risk Criteria	Modification to install incipient detection, provide fuse or other elec. iso. device at the DC shunt conn. pt. and replace trip device in pnl Q2R42B0001A, bkrs LA08 and LA13; pnl Q2R42B0001B, bkr LB02
Modifications		DID Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point and to plumb air from emergency air compressor header to AFW flow control valve.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-040-U2 - Cable Spreading Room NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title Summary	<p>FRE for Fire Area 2-040-U2</p> <p>A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with modification(s), specified recovery actions, and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.</p>	
Δ CDF	5.49E-08	
Δ LERF	5.49E-08	
DID Maintained	<p>The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, recovery actions, modification to provide fuse or other electrical isolation device at the DC shunt connection point the installed detection and suppression systems were identified as required for DID.</p>	
Safety Margin Maintained	<p>All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.</p>	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-001	
VFDR	N2P11V0901:MODULATED:CLOSED, SJAE BYPASS FCV - N2P11V0901 - SJAE BYPASS FCV. This normally closed, required closed valve. The valve is used to provide makeup to the condenser from the CST. If the condenser vacuum has not broken, then the CST can drain to the condenser hot well and prevent available source of inventory for use by AFW. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-002	
VFDR	N2P11V0901:MODULATED:CLOSED, SJAE BYPASS FCV - N2P11V0901 - SJAE BYPASS FCV. This normally closed, required closed valve. The valve is used to provide makeup to the condenser from the CST. If the condenser vacuum has not broken, then the CST can drain to the condenser hot well and prevent available source of inventory for use by AFW. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-003	
VFDR	N2P11V0902:MODULATED:CLOSED, GS CONDENSATE BYPASS FCV - N2P11V0902 - GS CONDENSATE BYPASS FCV. This normally closed, required closed valve. The valve is used to provide makeup to the condenser from the CST. If the condenser vacuum has not broken, then the CST can drain to the condenser hot well and prevent available source of inventory for use by AFW. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-004	
VFDR	N2P11V0902:MODULATED:CLOSED, GS CONDENSATE BYPASS FCV - N2P11V0902 - GS CONDENSATE BYPASS FCV. This normally closed, required closed valve. The valve is used to provide makeup to the condenser from the CST. If the condenser vacuum has not broken, then the CST can drain to the condenser hot well and prevent available source of inventory for use by AFW. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-005	
VFDR	N2P18V0073A:CLOSED:OPEN, EMERGENCY AIR HEADER ISOLATION TO A STEAM GENERATOR ATMOS RELIEF - N2P18V0073A - EMERGENCY AIR HEADER ISOLATION TO A STEAM GENERATOR ATMOS RELIEF. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-006	
VFDR	N2P18V0073A:CLOSED:OPEN, EMERGENCY AIR HEADER ISOLATION TO A STEAM GENERATOR ATMOS RELIEF - N2P18V0073A - EMERGENCY AIR HEADER ISOLATION TO A STEAM GENERATOR ATMOS RELIEF. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-007	
VFDR	N2P18V0074A:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO A STEAM GENERATOR ATMOS RELIEF - N2P18V0074A - EMERGENCY AIR SUPPLY VALVE TO A STEAM GENERATOR ATMOS RELIEF. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-008	
VFDR	N2P18V0074A:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO A STEAM GENERATOR ATMOS RELIEF - N2P18V0074A - EMERGENCY AIR SUPPLY VALVE TO A STEAM GENERATOR ATMOS RELIEF. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-009	
VFDR	N2P18V0106A:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235A - N2P18V0106A - EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235A. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-010	
VFDR	N2P18V0106A:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235A - N2P18V0106A - EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235A. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-011	
VFDR	N2P18V0106B:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235B - N2P18V0106B - EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235B. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-012	
VFDR	N2P18V0106B:CLOSED:OPEN, EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235B - N2P18V0106B - EMERGENCY AIR SUPPLY VALVE TO TDAFW STEAM SUPPLY HV-3235B. This normally closed, required open valve. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-013	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW TO D/G 2B. This normally closed, required closed valve. The service water valve is required closed to prevent cross tying units service water systems. If the other unit service water loop is not available or in service may prevent adequate cooling of required cooling loads. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-014	
VFDR	Q1P16V0592:CLOSED:CLOSED, SW TO D/G 2B - Q1P16V0592 - SW TO D/G 2B. This normally closed, required closed valve. The service water valve is required closed to prevent cross tying units service water systems. If the other unit service water loop is not available or in service may prevent adequate cooling of required cooling loads. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-015	
VFDR	Q1R16B0506:ENERGIZED:ENERGIZED-U2, 600V LOAD CENTER 1K/2K - Q1R16B0506 - 600V LOAD CENTER 1K/2K. This normally energized, required energized load center. The load center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-016	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R16B0506:ENERGIZED:ENERGIZED-U2, 600V LOAD CENTER 1K/2K - Q1R16B0506 - 600V LOAD CENTER 1K/2K. This normally energized, required energized load center. The load center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-017	
VFDR	Q2R11B0504:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2K - Q2R11B0504 - STATION SERVICE TRANSFORMER 2K. This normally energized, required energized transformer. The transformer is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-018	
VFDR	Q2R11B0504:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2K - Q2R11B0504 - STATION SERVICE TRANSFORMER 2K. This normally energized, required energized transformer. The transformer is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-019	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R16B0507:ENERGIZED:ENERGIZED-U2, 600V LOAD CENTER 1L/2L - Q1R16B0507 - 600V LOAD CENTER 1L/2L. This normally energized, required energized load center. The load center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-020	
VFDR	Q1R16B0507:ENERGIZED:ENERGIZED-U2, 600V LOAD CENTER 1L/2L - Q1R16B0507 - 600V LOAD CENTER 1L/2L. This normally energized, required energized load center. The load center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-021	
VFDR	Q2R11B0505:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2L - Q2R11B0505 - STATION SERVICE TRANSFORMER 2L. This normally energized, required energized transformer. The transformer is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-022	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R11B0505:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2L - Q2R11B0505 - STATION SERVICE TRANSFORMER 2L. This normally energized, required energized transformer. The transformer is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-023	
VFDR	Q1R17B0505:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1L - Q1R17B0505 - MOTOR CONTROL CENTER 1L. This normally energized, required energized MCC. The motor control center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-024	
VFDR	Q1R17B0505:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 1L - Q1R17B0505 - MOTOR CONTROL CENTER 1L. This normally energized, required energized MCC. The motor control center is required to be energized to support service water system loads. Failure of service water system prevents sufficient cooling of required loads and impacts multiple system requiring its support. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-025	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U2, MOTOR CONTROL CENTER 1S - Q1R17B0509 - MOTOR CONTROL CENTER 1S. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-026	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U2, MOTOR CONTROL CENTER 1S - Q1R17B0509 - MOTOR CONTROL CENTER 1S. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-027	
VFDR	Q2B13HV0003:OPEN:OPEN/CLOSED-HSP, REACTOR VESSEL HEAD VENT - Q2B13HV0003 - REACTOR VESSEL HEAD VENT. This normally open, required closed valve. The head vent is required to be isolated to prevent uncontrolled RCS inventory losses. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-028	
VFDR	Q2B13HV0003:OPEN:OPEN/CLOSED-HSP, REACTOR VESSEL HEAD VENT - Q2B13HV0003 - REACTOR VESSEL HEAD VENT. This normally open, required closed valve. The head vent is required to be isolated to prevent uncontrolled RCS inventory losses. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-029	
VFDR	Q2B13HV0004:OPEN:OPEN/CLOSED-HSP, REACTOR VESSEL HEAD VENT - Q2B13HV0004 - REACTOR VESSEL HEAD VENT. This normally open, required closed valve. The head vent is required to be isolated to prevent uncontrolled RCS inventory losses. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-030	
VFDR	Q2B13HV0004:OPEN:OPEN/CLOSED-HSP, REACTOR VESSEL HEAD VENT - Q2B13HV0004 - REACTOR VESSEL HEAD VENT. This normally open, required closed valve. The head vent is required to be isolated to prevent uncontrolled RCS inventory losses. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-031	
VFDR	Q2B31V0027B:OPEN:OPEN/CLOSED-HSPB, PORV BLOCK VALVE - Q2B31V0027B - PORV BLOCK VALVE. This normally open, required closed valve. The PORV line is required to be isolated to prevent uncontrolled RCS inventory losses and pressure transients. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-032	
VFDR	Q2B31V0027B:OPEN:OPEN/CLOSED-HSPB, PORV BLOCK VALVE - Q2B31V0027B - PORV BLOCK VALVE. This normally open, required closed valve. The PORV line is required to be isolated to prevent uncontrolled RCS inventory losses and pressure transients. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-033	
VFDR	Q2C11E0004A:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 1 - Q2C11E0004A - REACTOR TRIP SWITCHGEAR 1. This normally closed, required open breaker. The reactor trip is tripped in the Control Room not the PCS and is required to be verified outside of the control room. This provides assurance that credited action in control has taken place. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to verify reactor trip has occurred, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-034	
VFDR	Q2C11E0004A:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 1 - Q2C11E0004A - REACTOR TRIP SWITCHGEAR 1. This normally closed, required open breaker. The reactor trip is tripped in the Control Room not the PCS and is required to be verified outside of the control room. This provides assurance that credited action in control has taken place. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to verify reactor trip has occurred, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-035	
VFDR	Q2C11E0004B:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 2 - Q2C11E0004B - REACTOR TRIP SWITCHGEAR 2. This normally closed, required open breaker. The reactor trip is tripped in the Control Room not the PCS and is required to be verified outside of the control room. This provides assurance that credited action in control has taken place. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to verify reactor trip has occurred, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-036	
VFDR	Q2C11E0004B:CLOSED:OPEN, REACTOR TRIP SWITCHGEAR 2 - Q2C11E0004B - REACTOR TRIP SWITCHGEAR 2. This normally closed, required open breaker. The reactor trip is tripped in the Control Room not the PCS and is required to be verified outside of the control room. This provides assurance that credited action in control has taken place. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to verify reactor trip has occurred, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-037	
VFDR	Q2E11V0001A:CLOSED:CLOSED, 2C RCS LOOP TO 2A RHR PUMP - Q2E11V0001A - 2C RCS LOOP TO 2A RHR PUMP. This normally closed, required closed valve. The RHR pump suction valve is a high low pressure interface required to be closed. If both valve open potential interfacing LOCA. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-038	
VFDR	Q2E11V0001B:CLOSED:CLOSED, 2A RCS LOOP TO 2B RHR PUMP - Q2E11V0001B - 2A RCS LOOP TO 2B RHR PUMP. This normally closed, required closed valve. The RHR pump suction valve is a high low pressure interface required to be closed. If both valve open potential interfacing LOCA. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-039	
VFDR	Q2E11V0016A:CLOSED:CLOSED, 2C RCS LOOP TO 2A RHR PUMP - Q2E11V0016A - 2C RCS LOOP TO 2A RHR PUMP. This normally closed, required closed valve. The RHR pump suction valve is a high low pressure interface required to be closed. If both valve open potential interfacing LOCA. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-040	
VFDR	Q2E11V0016B:CLOSED:CLOSED, 2A RCS LOOP TO 2B RHR PUMP - Q2E11V0016B - 2A RCS LOOP TO 2B RHR PUMP. This normally closed, required closed valve. The RHR pump suction valve is a high low pressure interface required to be closed. If both valve open potential interfacing LOCA. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-041	
VFDR	Q2E11V0025B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025B - CONTAINMENT SUMP TO 2B RHR PUMP (INSIDE ENCAPSULATION). This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-042	
VFDR	Q2E11V0025B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025B - CONTAINMENT SUMP TO 2B RHR PUMP (INSIDE ENCAPSULATION). This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-043	
VFDR	Q2E11V0026B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP - Q2E11V0026B - CONTAINMENT SUMP TO 2B RHR PUMP. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-044	
VFDR	Q2E11V0026B:CLOSED:CLOSED, CONTAINMENT SUMP TO 2B RHR PUMP - Q2E11V0026B - CONTAINMENT SUMP TO 2B RHR PUMP. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-045	
VFDR	Q2E13V0003A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003A - 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-046	
VFDR	Q2E13V0003A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003A - 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-047	
VFDR	Q2E13V0003B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003B - 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-048	
VFDR	Q2E13V0003B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0003B - 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-049	
VFDR	Q2E13V0004A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0004A - 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-050	
VFDR	Q2E13V0004A:CLOSED:CLOSED, 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0004A - 2A CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-051	
VFDR	Q2E13V0004B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0004B - 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-052	
VFDR	Q2E13V0004B:CLOSED:CLOSED, 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION - Q2E13V0004B - 2B CS PUMP CONTAINMENT SUMP SUCTION ISOLATION. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-053	
VFDR	Q2E16H0001A:STANDBY:ON, CHARGING/HHSI PUMP ROOM COOLER 2A - Q2E16H0001A - CHARGING/HHSI PUMP ROOM COOLER 2A. This normally standby, required on cooler. The cooler is required to support charging pump. Failure of charging pump can disable to ability to use the RWST inventory to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-054	
VFDR	Q2E16H0001A:STANDBY:ON, CHARGING/HHSI PUMP ROOM COOLER 2A - Q2E16H0001A - CHARGING/HHSI PUMP ROOM COOLER 2A. This normally standby, required on cooler. The cooler is required to support charging pump. Failure of charging pump can disable to ability to use the RWST inventory to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-055	
VFDR	Q2E16H0001B:STANDBY:ON-TRAIN A, CHARGING/HHSI PUMP ROOM COOLER 2B - Q2E16H0001B - CHARGING/HHSI PUMP ROOM COOLER 2B. This normally standby, required on cooler. The cooler is required to support charging pump. Failure of charging pump can disable to ability to use the RWST inventory to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-056	
VFDR	Q2E16H0001B:STANDBY:ON-TRAIN B, CHARGING/HHSI PUMP ROOM COOLER 2B - Q2E16H0001B - CHARGING/HHSI PUMP ROOM COOLER 2B. This normally standby, required on cooler. The cooler is required to support charging pump. Failure of charging pump can disable to ability to use the RWST inventory to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-057	
VFDR	Q2E16H0001C:STANDBY:ON, CHARGING/HHSI PUMP ROOM COOLER 2C - Q2E16H0001C - CHARGING/HHSI PUMP ROOM COOLER 2C. This normally standby, required on cooler. The cooler is required to support charging pump. Failure of charging pump can disable to ability to use the RWST inventory to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-058	
VFDR	Q2E16H0005A:STANDBY:ON, 2A AFW PUMP ROOM COOLER - Q2E16H0005A - 2A AFW PUMP ROOM COOLER. This normally standby, required on cooler. The cooler is required to support AFW pump. Failure of AFW pump can disable to ability to control steam generator for Decay Heat Removal. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-059	
VFDR	Q2E16H0005A:STANDBY:ON, 2A AFW PUMP ROOM COOLER - Q2E16H0005A - 2A AFW PUMP ROOM COOLER. This normally standby, required on cooler. The cooler is required to support AFW pump. Failure of AFW pump can disable to ability to control steam generator for Decay Heat Removal. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-060	
VFDR	Q2E21V0063:CLOSED:CLOSED, CHARGING PUMP RECIRC TO RCS COLD LEGS - Q2E21V0063 - CHARGING PUMP RECIRC TO RCS COLD LEGS. This normally closed, required closed valve. The recirc to RCS cold leg is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-061	
VFDR	Q2E21V0063:CLOSED:CLOSED, CHARGING PUMP RECIRC TO RCS COLD LEGS - Q2E21V0063 - CHARGING PUMP RECIRC TO RCS COLD LEGS. This normally closed, required closed valve. The recirc to RCS cold leg is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-062	
VFDR	Q2E21V0134B:OPEN:OPEN/CLOSED, CHARGING FLOW REGULATOR INLET - Q2E21V0134B - CHARGING FLOW REGULATOR INLET. This normally open, required closed valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-063	
VFDR	Q2E21V0134B:OPEN:OPEN/CLOSED, CHARGING FLOW REGULATOR INLET - Q2E21V0134B - CHARGING FLOW REGULATOR INLET. This normally open, required closed valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-064	
VFDR	Q2E21V0135:CLOSED:OPEN/CLOSED, CHARGING FLOW REGULATOR BYPASS - Q2E21V0135 - CHARGING FLOW REGULATOR BYPASS. This normally closed, required open valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-065	
VFDR	Q2E21V0135:CLOSED:OPEN/CLOSED, CHARGING FLOW REGULATOR BYPASS - Q2E21V0135 - CHARGING FLOW REGULATOR BYPASS. This normally closed, required open valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-066	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - Q2E21V0244 - RCS NORMAL CHARGING LINE. This normally open, required modulated valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-067	
VFDR	Q2E21V0244:OPEN:MODULATE, RCS NORMAL CHARGING LINE - Q2E21V0244 - RCS NORMAL CHARGING LINE. This normally open, required modulated valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-068	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - Q2E21V0245 - RCS PRESSURIZER AUX SPRAY. This normally closed, required closed valve. The auxiliary spray line is required to be isolated to prevent uncontrolled pressure transient. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-069	
VFDR	Q2E21V0245:CLOSED:CLOSED, RCS PRESSURIZER AUX SPRAY - Q2E21V0245 - RCS PRESSURIZER AUX SPRAY. This normally closed, required closed valve. The auxiliary spray line is required to be isolated to prevent uncontrolled pressure transient. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-070	
VFDR	Q2E21V0259A:OPEN:OPEN, 2A CHARGING PUMP MINIFLOW ISOLATION - Q2E21V0259A - 2A CHARGING PUMP MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-071	
VFDR	Q2E21V0259B:OPEN:OPEN, 2B CHARGING PUMP MINIFLOW ISOLATION - Q2E21V0259B - 2B CHARGING PUMP MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-072	
VFDR	Q2E21V0259B:OPEN:OPEN, 2B CHARGING PUMP MINIFLOW ISOLATION - Q2E21V0259B - 2B CHARGING PUMP MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-073	
VFDR	Q2E21V0259C:OPEN:OPEN, 2C CHARGING PUMP MINIFLOW ISOLATION - Q2E21V0259C - 2C CHARGING PUMP MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-074	
VFDR	Q2E21V0265:OPEN:OPEN, CHARGING PUMPS MINIFLOW ISOLATION - Q2E21V0265 - CHARGING PUMPS MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-075	
VFDR	Q2E21V0265:OPEN:OPEN, CHARGING PUMPS MINIFLOW ISOLATION - Q2E21V0265 - CHARGING PUMPS MINIFLOW ISOLATION. This normally open, required open valve. The charging minimum flow line is required to be available to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-076	
VFDR	Q2E21V0376A:OPEN:CLOSED, VCT OUTLET ISOLATION - Q2E21V0376A - VCT OUTLET ISOLATION. This normally open, required closed valve. The VCT outlet valve is required to be closed to prevent gas binding of the charging pumps. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-077	
VFDR	Q2E21V0376A:OPEN:CLOSED, VCT OUTLET ISOLATION - Q2E21V0376A - VCT OUTLET ISOLATION. This normally open, required closed valve. The VCT outlet valve is required to be closed to prevent gas binding of the charging pumps. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-078	
VFDR	Q2E21V0606:CLOSED:OPEN/CLOSED, CHARGING FLOW REGULATOR BYPASS - Q2E21V0606 - CHARGING FLOW REGULATOR BYPASS. This normally closed, required open valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-079	
VFDR	Q2E21V0606:CLOSED:OPEN/CLOSED, CHARGING FLOW REGULATOR BYPASS - Q2E21V0606 - CHARGING FLOW REGULATOR BYPASS. This normally closed, required open valve. The charging flow control valve is not available. Manual flow control is used. Fire induced damage to cables and spurious ESFAS in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-080	
VFDR	N2F16LI4075A:AVAILABLE:AVAILABLE, RWST LEVEL INDICATOR LI-4075A - N2F16LI4075A - RWST LEVEL INDICATOR LI-4075A. This normally available, required available indicator. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level, if RWST level is indeterminate operators would have inadequate instrumentation to determine proper actions. Fire induced damage to cables prevent available indication in the control room and indication is not available on the PCS, and a challenge to the Reactivity Control and RCS Pressure and Inventory Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-081	
VFDR	N2F16LI4075A:AVAILABLE:AVAILABLE, RWST LEVEL INDICATOR LI-4075A - N2F16LI4075A - RWST LEVEL INDICATOR LI-4075A. This normally available, required available indicator. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level, if RWST level is indeterminate operators would have inadequate instrumentation to determine proper actions. Fire induced damage to cables prevent available indication in the control room and indication is not available on the PCS, and a challenge to the Reactivity Control and RCS Pressure and Inventory Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-082	
VFDR	Q2N11V0003A:CLOSED:CLOSED, 2A SG MSIV BYPASS - Q2N11V0003A - 2A SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-083	
VFDR	Q2N11V0003A:CLOSED:CLOSED, 2A SG MSIV BYPASS - Q2N11V0003A - 2A SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-084	
VFDR	Q2N11V0003B:CLOSED:CLOSED, 2B SG MSIV BYPASS - Q2N11V0003B - 2B SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-085	
VFDR	Q2N11V0003B:CLOSED:CLOSED, 2B SG MSIV BYPASS - Q2N11V0003B - 2B SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-086	
VFDR	Q2N11V0003C:CLOSED:CLOSED, 2C SG MSIV BYPASS - Q2N11V0003C - 2C SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-087	
VFDR	Q2N11V0003C:CLOSED:CLOSED, 2C SG MSIV BYPASS - Q2N11V0003C - 2C SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-088	
VFDR	Q2N11V0003D:CLOSED:CLOSED, 2A SG MSIV BYPASS - Q2N11V0003D - 2A SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-089	
VFDR	Q2N11V0003D:CLOSED:CLOSED, 2A SG MSIV BYPASS - Q2N11V0003D - 2A SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-090	
VFDR	Q2N11V0003E:CLOSED:CLOSED, 2B SG MSIV BYPASS - Q2N11V0003E - 2B SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-091	
VFDR	Q2N11V0003E:CLOSED:CLOSED, 2B SG MSIV BYPASS - Q2N11V0003E - 2B SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-092	
VFDR	Q2N11V0003F:CLOSED:CLOSED, 2C SG MSIV BYPASS - Q2N11V0003F - 2C SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-093	
VFDR	Q2N11V0003F:CLOSED:CLOSED, 2C SG MSIV BYPASS - Q2N11V0003F - 2C SG MSIV BYPASS. This normally closed, required closed valve. The MSIVs and bypass valves are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-094	
VFDR	Q2N23V0013A:CLOSED:OPEN, MDAFWP SW SUPPLY - Q2N23V0013A - MDAFWP SW SUPPLY. This normally closed, required open valve. The AFW pump initial suction source is the CST, long term suction will be aligned to service water system. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-095	
VFDR	Q2N23V0013A:CLOSED:OPEN, MDAFWP SW SUPPLY - Q2N23V0013A - MDAFWP SW SUPPLY. This normally closed, required open valve. The AFW pump initial suction source is the CST, long term suction will be aligned to service water system. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-096	
VFDR	Q2N23V0014A:CLOSED:OPEN, MDAFWP SW SUPPLY - Q2N23V0014A - MDAFWP SW SUPPLY. This normally closed, required open valve. The AFW pump initial suction source is the CST, long term suction will be aligned to service water system. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-097	
VFDR	Q2N23V0014A:CLOSED:OPEN, MDAFWP SW SUPPLY - Q2N23V0014A - MDAFWP SW SUPPLY. This normally closed, required open valve. The AFW pump initial suction source is the CST, long term suction will be aligned to service water system. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-098	
VFDR	Q2N23V0025A:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - Q2N23V0025A - MDAFWP TO 2A STEAM GENERATOR ISOLATION. This normally open, required open valve. The AFW valve is required to be open to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-099	
VFDR	Q2N23V0025A:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - Q2N23V0025A - MDAFWP TO 2A STEAM GENERATOR ISOLATION. This normally open, required open valve. The AFW valve is required to be open to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-100	
VFDR	Q2N23V0025E:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - Q2N23V0025E - MDAFWP TO 2A STEAM GENERATOR ISOLATION. This normally open, required open valve. The AFW valve is required to be open to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-101	
VFDR	Q2N23V0025E:OPEN:OPEN, MDAFWP TO 2A STEAM GENERATOR ISOLATION - Q2N23V0025E - MDAFWP TO 2A STEAM GENERATOR ISOLATION. This normally open, required open valve. The AFW valve is required to be open to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-102	
VFDR	Q2P16FV3009B:OPEN:OPEN, SW FROM 2B CCW HX - Q2P16FV3009B - SW FROM 2B CCW HX. This normally open, required open valve. The service water valve is required open to supply the CCW heat exchanger. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-103	
VFDR	Q2P16FV3009B:OPEN:OPEN, SW FROM 2B CCW HX - Q2P16FV3009B - SW FROM 2B CCW HX. This normally open, required open valve. The service water valve is required open to supply the CCW heat exchanger. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-104	
VFDR	Q2P16FV3009C:OPEN:OPEN, SW FROM 2C CCW HX - Q2P16FV3009C - SW FROM 2C CCW HX. This normally open, required open valve. The service water valve is required open to supply the CCW heat exchanger. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-105	
VFDR	Q2P16FV3009C:OPEN:OPEN, SW FROM 2C CCW HX - Q2P16FV3009C - SW FROM 2C CCW HX. This normally open, required open valve. The service water valve is required open to supply the CCW heat exchanger. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-106	
VFDR	Q2P16P0001A:STANDBY:ON, 2A SERVICE WATER PUMP - Q2P16P0001A - 2A SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-107	
VFDR	Q2P16P0001A:STANDBY:ON, 2A SERVICE WATER PUMP - Q2P16P0001A - 2A SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-108	
VFDR	Q2P16P0001B:STANDBY:ON, 2B SERVICE WATER PUMP - Q2P16P0001B - 2B SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-109	
VFDR	Q2P16P0001B:STANDBY:ON, 2B SERVICE WATER PUMP - Q2P16P0001B - 2B SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-110	
VFDR	Q2P16P0001C:STANDBY:ON, 2C SERVICE WATER PUMP - Q2P16P0001C - 2C SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-111	
VFDR	Q2P16P0001C:STANDBY:ON, 2C SERVICE WATER PUMP - Q2P16P0001C - 2C SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-112	
VFDR	Q2P16P0001D:STANDBY:ON, 2D SERVICE WATER PUMP - Q2P16P0001D - 2D SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-113	
VFDR	Q2P16P0001D:STANDBY:ON, 2D SERVICE WATER PUMP - Q2P16P0001D - 2D SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-114	
VFDR	Q2P16P0001E:STANDBY:ON, 2E SERVICE WATER PUMP - Q2P16P0001E - 2E SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-115	
VFDR	Q2P16P0001E:STANDBY:ON, 2E SERVICE WATER PUMP - Q2P16P0001E - 2E SERVICE WATER PUMP. This normally standby, required on pump. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-116	
VFDR	Q2P16V0001A:OPEN:OPEN, SW TO AUX BLDG A HEADER ISOLATION - Q2P16V0001A - SW TO AUX BLDG A HEADER ISOLATION. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-117	
VFDR	Q2P16V0001A:OPEN:OPEN, SW TO AUX BLDG A HEADER ISOLATION - Q2P16V0001A - SW TO AUX BLDG A HEADER ISOLATION. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-118	
VFDR	Q2P16V0001B:OPEN:OPEN, SW TO AUX BLDG B HEADER ISOLATION - Q2P16V0001B - SW TO AUX BLDG B HEADER ISOLATION. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-119	
VFDR	Q2P16V0001B:OPEN:OPEN, SW TO AUX BLDG B HEADER ISOLATION - Q2P16V0001B - SW TO AUX BLDG B HEADER ISOLATION. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-120	
VFDR	Q2P16V0003B:OPEN:OPEN, SW TO 2B CCW HX - Q2P16V0003B - SW TO 2B CCW HX. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-121	
VFDR	Q2P16V0003B:OPEN:OPEN, SW TO 2B CCW HX - Q2P16V0003B - SW TO 2B CCW HX. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-122	
VFDR	Q2P16V0003C:OPEN:OPEN, SW TO 2C CCW HX - Q2P16V0003C - SW TO 2C CCW HX. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-123	
VFDR	Q2P16V0003C:OPEN:OPEN, SW TO 2C CCW HX - Q2P16V0003C - SW TO 2C CCW HX. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-124	
VFDR	Q2P16V0506:STANDBY:CLOSED, 2C SW PUMP TO SW HEADER B - Q2P16V0506 - 2C SW PUMP TO SW HEADER B. This normally standby, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-125	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0506:STANDBY:CLOSED, 2C SW PUMP TO SW HEADER B - Q2P16V0506 - 2C SW PUMP TO SW HEADER B. This normally standby, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-126	
VFDR	Q2P16V0506:STANDBY:OPEN, 2C SW PUMP TO SW HEADER B - Q2P16V0506 - 2C SW PUMP TO SW HEADER B. This normally standby, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-127	
VFDR	Q2P16V0506:STANDBY:OPEN, 2C SW PUMP TO SW HEADER B - Q2P16V0506 - 2C SW PUMP TO SW HEADER B. This normally standby, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-128	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0507:STANDBY:CLOSED, 2C SW PUMP TO SW HEADER A - Q2P16V0507 - 2C SW PUMP TO SW HEADER A. This normally standby, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-129	
VFDR	Q2P16V0507:STANDBY:CLOSED, 2C SW PUMP TO SW HEADER A - Q2P16V0507 - 2C SW PUMP TO SW HEADER A. This normally standby, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-130	
VFDR	Q2P16V0507:STANDBY:OPEN, 2C SW PUMP TO SW HEADER A - Q2P16V0507 - 2C SW PUMP TO SW HEADER A. This normally standby, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-131	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0507:STANDBY:OPEN, 2C SW PUMP TO SW HEADER A - Q2P16V0507 - 2C SW PUMP TO SW HEADER A. This normally standby, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-132	
VFDR	Q2P16V0508:OPEN:OPEN, SW HEADER DISCHARGE TRAIN B - Q2P16V0508 - SW HEADER DISCHARGE TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-133	
VFDR	Q2P16V0508:OPEN:OPEN, SW HEADER DISCHARGE TRAIN B - Q2P16V0508 - SW HEADER DISCHARGE TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-134	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0511:OPEN:OPEN, SW HEADER DISCHARGE TRAIN A - Q2P16V0511 - SW HEADER DISCHARGE TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-135	
VFDR	Q2P16V0511:OPEN:OPEN, SW HEADER DISCHARGE TRAIN A - Q2P16V0511 - SW HEADER DISCHARGE TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-136	
VFDR	Q2P16V0518:OPEN:OPEN, SW TO DB TRAIN B - Q2P16V0518 - SW TO DB TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-137	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0518:OPEN:OPEN, SW TO DB TRAIN B - Q2P16V0518 - SW TO DB TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-138	
VFDR	Q2P16V0536:OPEN:OPEN, SW FROM DB TRAIN A - Q2P16V0519 - SW TO DB TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-139	
VFDR	Q2P16V0536:OPEN:OPEN, SW FROM DB TRAIN A - Q2P16V0519 - SW TO DB TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-140	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0545:OPEN:OPEN/CLOSED, TRAIN B SW DISCHARGE TO RIVER - Q2P16V0545 - TRAIN B SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-141	
VFDR	Q2P16V0545:OPEN:OPEN/CLOSED, TRAIN B SW DISCHARGE TO RIVER - Q2P16V0545 - TRAIN B SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-142	
VFDR	Q2P16V0592:OPEN:OPEN, DG 2B U2 SW INLET - Q2P16V0592 - DG 2B U2 SW INLET. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-143	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0592:OPEN:OPEN, DG 2B U2 SW INLET - Q2P16V0592 - DG 2B U2 SW INLET. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-144	
VFDR	Q2P16V0593:OPEN:OPEN, DG 2B U2 SW OUTLET - Q2P16V0593 - DG 2B U2 SW OUTLET. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-145	
VFDR	Q2P16V0593:OPEN:OPEN, DG 2B U2 SW OUTLET - Q2P16V0593 - DG 2B U2 SW OUTLET. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-146	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P17V0082:OPEN:CLOSED, CCW TO RCP COOLERS - Q2P17V0082 - CCW TO RCP COOLERS. This normally open, required close valve. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-147	
VFDR	Q2P17V0082:OPEN:CLOSED, CCW TO RCP COOLERS - Q2P17V0082 - CCW TO RCP COOLERS. This normally open, required close valve. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-148	
VFDR	Q2P18C0002A:OFF:ON, EMERGENCY AIR COMPRESSOR 2A - Q2P18C0002A - EMERGENCY AIR COMPRESSOR 2A. This normally off, required on compressor. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-149	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P18C0002A:OFF:ON, EMERGENCY AIR COMPRESSOR 2A - Q2P18C0002A - EMERGENCY AIR COMPRESSOR 2A. This normally off, required on compressor. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-150	
VFDR	Q2P18C0002A:OFF:ON-LOC, EMERGENCY AIR COMPRESSOR 2A - Q2P18C0002A - EMERGENCY AIR COMPRESSOR 2A. This normally off, required on compressor. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-151	
VFDR	Q2P18C0002A:OFF:ON-LOC, EMERGENCY AIR COMPRESSOR 2A - Q2P18C0002A - EMERGENCY AIR COMPRESSOR 2A. This normally off, required on compressor. Instrument air is normally credited to supply the Atmospheric Reliefs. Should instrument air not be available the Emergency Air System is aligned to provide control air. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-152	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-EDG2B, 4160V SWITCHGEAR BUS 2G - Q2R15A0007 - 4160V SWITCHGEAR BUS 2G. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-153	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-EDG2B, 4160V SWITCHGEAR BUS 2G - Q2R15A0007 - 4160V SWITCHGEAR BUS 2G. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-154	
VFDR	Q2R15A0505:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2K - Q2R15A0505 - 4160V SWITCHGEAR BUS 2K. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-155	
VFDR	Q2R15A0505:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2K - Q2R15A0505 - 4160V SWITCHGEAR BUS 2K. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-156	
VFDR	Q2R15A0506:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2L - Q2R15A0506 - 4160V SWITCHGEAR BUS 2L. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-157	
VFDR	Q2R15A0506:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2L - Q2R15A0506 - 4160V SWITCHGEAR BUS 2L. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-158	
VFDR	Q2R16B0005:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2C - Q2R16B0005 - 600V LOAD CENTER 2C. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-159	
VFDR	Q2R16B0005:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2C - Q2R16B0005 - 600V LOAD CENTER 2C. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-160	
VFDR	Q2R16B0006:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2D - Q2R16B0006 - 600V LOAD CENTER 2D. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-161	
VFDR	Q2R16B0006:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2D - Q2R16B0006 - 600V LOAD CENTER 2D. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-162	
VFDR	Q2R11B0004:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2D - Q2R11B0004 - STATION SERVICE TRANSFORMER 2D. This normally energized, required energized transformer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-163	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R11B0004:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2D - Q2R11B0004 - STATION SERVICE TRANSFORMER 2D. This normally energized, required energized transformer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-164	
VFDR	Q2R16B0007:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2E - Q2R16B0007 - 600V LOAD CENTER 2E. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-165	
VFDR	Q2R16B0007:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2E - Q2R16B0007 - 600V LOAD CENTER 2E. This normally energized, required energized load center. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-166	
VFDR	Q2R11B0005:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2E - Q2R11B0005 - STATION SERVICE TRANSFORMER 2E. This normally energized, required energized transformer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-167	
VFDR	Q2R11B0005:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2E - Q2R11B0005 - STATION SERVICE TRANSFORMER 2E. This normally energized, required energized transformer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-168	
VFDR	Q2R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2A - Q2R17B0001 - MOTOR CONTROL CENTER 2A. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-169	
VFDR	Q2R17B0001:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2A - Q2R17B0001 - MOTOR CONTROL CENTER 2A. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-170	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R17B0002:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2B - Q2R17B0002 - MOTOR CONTROL CENTER 2B. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-171	
VFDR	Q2R17B0002:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2B - Q2R17B0002 - MOTOR CONTROL CENTER 2B. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-172	
VFDR	Q2R17B0008:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2U - Q2R17B0008 - MOTOR CONTROL CENTER 2U. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-173	
VFDR	Q2R17B0008:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2U - Q2R17B0008 - MOTOR CONTROL CENTER 2U. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-174	
VFDR	Q2R17B0009:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2V - Q2R17B0009 - MOTOR CONTROL CENTER 2V. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-175	
VFDR	Q2R17B0009:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2V - Q2R17B0009 - MOTOR CONTROL CENTER 2V. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-176	
VFDR	Q2R17B0510:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2T - Q2R17B0510 - MOTOR CONTROL CENTER 2T. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-177	
VFDR	Q2R17B0510:ENERGIZED:ENERGIZED, MOTOR CONTROL CENTER 2T - Q2R17B0510 - MOTOR CONTROL CENTER 2T. This normally energized, required energized MCC. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-178	
VFDR	Q2R43A0505:STANDBY:ENERGIZED, 2B DIESEL GENERATOR - Q2R43A0505 - 2B DIESEL GENERATOR. This normally standby, required on diesel generator. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-179	
VFDR	Q2R43A0505:STANDBY:ENERGIZED, 2B DIESEL GENERATOR - Q2R43A0505 - 2B DIESEL GENERATOR. This normally standby, required on diesel generator. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-180	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F - Q2R43E0001A - SEQUENCER BUS 2F. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-181	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F - Q2R43E0001A - SEQUENCER BUS 2F. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-182	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 2F - Q2R43E0001A - SEQUENCER BUS 2F. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-183	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 2F - Q2R43E0001A - SEQUENCER BUS 2F. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-184	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 2G - Q2R43E0001B - SEQUENCER BUS 2G. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-185	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 2G - Q2R43E0001B - SEQUENCER BUS 2G. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-186	
VFDR	QSR43A0501:STANDBY:ENERGIZING U2, 1-2A DIESEL GENERATOR - QSR43A0501 - 1-2A DIESEL GENERATOR. This normally standby, required on diesel generator. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-187	
VFDR	QSR43A0501:STANDBY:ENERGIZING U2, 1-2A DIESEL GENERATOR - QSR43A0501 - 1-2A DIESEL GENERATOR. This normally standby, required on diesel generator. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-188	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A: - PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL. This normally on/off, required off pressurizer heater. The pressurizer heater is required to be secured to prevent uncontrolled pressurizer pressure transients. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-189	
VFDR	Q2B31L0001A:ON/OFF:OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A: - PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL. This normally on/off, required off pressurizer heater. The pressurizer heater is required to be secured to prevent uncontrolled pressurizer pressure transients. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control load center, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-190	
VFDR	N2B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - N2B31L0001C - PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-191	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31L0001C:ON:OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - N2B31L0001C - PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-192	
VFDR	N2B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - N2B31L0001D - PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-193	
VFDR	N2B31L0001D:ON:OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - N2B31L0001D - PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-194	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - N2B31L0001E - PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-195	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - N2B31L0001E - PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL. This normally on, required off pressurizer heater. The pressurizer heater are used to maintain the RCS pressure. Fire induced damage to cables and power supply may result in the inability to take control of pressurizer heater, and a challenge to the RCS Pressure and Inventory Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-196	
VFDR	Q2P19HV2228:CLOSED:OPEN, INSTRUMENT AIR CONTAINMENT ISOLATION BACK-UP VALVE - Q2P19HV2228 - INSTRUMENT AIR CONTAINMENT ISOLATION BACK-UP VALVE. This normally closed, required open valve. Instrument air is normally credited to supply the PORV. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-197	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P19HV2228:CLOSED:OPEN, INSTRUMENT AIR CONTAINMENT ISOLATION BACK-UP VALVE - Q2P19HV2228 - INSTRUMENT AIR CONTAINMENT ISOLATION BACK-UP VALVE. This normally closed, required open valve. Instrument air is normally credited to supply the PORV. Fire induced damage to cables in the control room for instrument air and no controls on the PCS prevent ability to control air operated valves, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-198	
VFDR	Q2E11V0025A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025A - CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION). This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-199	
VFDR	Q2E11V0025A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025A - CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION). This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-200	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11V0026A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP - Q2E11V0026A - CONTAINMENT SUMP TO 2A RHR PUMP. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-201	
VFDR	Q2E11V0026A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP - Q2E11V0026A - CONTAINMENT SUMP TO 2A RHR PUMP. This normally closed, required closed valve. The valve is used to prevent drain down of the RWST to Containment Sump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-202	
VFDR	Q2E13P0001A:ON:OFF, 2A CONTAINMENT SPRAY PUMP - Q2E13P0001A - 2A CONTAINMENT SPRAY PUMP. This normally off, required off pump. The containment spray pump if running can drain down the RWST to Containment. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-203	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E13P0001A:ON:OFF, 2A CONTAINMENT SPRAY PUMP - Q2E13P0001A - 2A CONTAINMENT SPRAY PUMP. This normally off, required off pump. The containment spray pump if running can drain down the RWST to Containment. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-204	
VFDR	Q2E13P0001B:ON:OFF, 2B CONTAINMENT SPRAY PUMP - Q2E13P0001B - 2B CONTAINMENT SPRAY PUMP. This normally off, required off pump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-205	
VFDR	Q2E13P0001B:ON:OFF, 2B CONTAINMENT SPRAY PUMP - Q2E13P0001B - 2B CONTAINMENT SPRAY PUMP. This normally off, required off pump. RWST inventory is used to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control and Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-206	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E16H0009:STANDBY:ON, 600V LOAD CENTER 2D ROOM AIR COOLER - Q2E16H0009 - 600V LOAD CENTER 2D ROOM AIR COOLER. This normally standby, required on cooler. The cooler is required to support load center. Failure of load center can disable to ability to control various systems. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control cooler, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-207	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A CHARGING PUMP. This normally on, required on pump. The charging pump is required for makeup to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables, CCW and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-208	
VFDR	Q2E21P0002B:ON:ON/OFF-HSP, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally standby, required on pump. The charging pump is required for makeup to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables, CCW and loss of dc control power in the control room prevent ability to control pump, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-209	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally on, required on pump. The charging pump is required for makeup to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables, CCW and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-210	
VFDR	Q2E21P0002C:ON:ON/OFF-HSP, 2C CHARGING PUMP - Q2E21P0002C - 2C CHARGING PUMP. This normally standby, required on pump. The charging pump is required for makeup to maintain K effective less than 0.99 and maintain RCS level. Fire induced damage to cables, CCW and loss of dc control power in the control room prevent ability to control pump, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-211	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-212	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-213	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-214	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-215	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-216	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002B - 2B CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-217	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002C - 2C CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-218	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002C - 2C CHARGING PUMP. This normally on, required off pump. The charging pump is required off to control RCS makeup capability. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-219	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016A - HHSI TO RCS COLD LEG ISOLATION. This normally closed, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-220	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016A - HHSI TO RCS COLD LEG ISOLATION. This normally closed, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-221	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0016B:CLOSED:CLOSED-TRAIN B, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016B - HHSI TO RCS COLD LEG ISOLATION. This normally closed, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-222	
VFDR	Q2E21V0016B:CLOSED:CLOSED-TRAIN B, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016B - HHSI TO RCS COLD LEG ISOLATION. This normally closed, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-223	
VFDR	Q2E21V0016B:OPEN:CLOSED-TRAIN A, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016B - HHSI TO RCS COLD LEG ISOLATION. This normally open, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-224	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0016B:OPEN:CLOSED-TRAIN A, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016B - HHSI TO RCS COLD LEG ISOLATION. This normally open, required closed valve. The cold leg safety injection path is not credited for RCS makeup. Valve is required close to prevent pump run out and uncontrolled RCS makeup. Fire induced damage to cables, spurious ESFAS and loss of control power in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-225	
VFDR	Q2E21V0258:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0258 - CHARGING PUMPS TO REGEN HX. This normally closed, required open valve. The charging line is required to be available to provide RCS makeup. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-226	
VFDR	Q2E21V0258:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0258 - CHARGING PUMPS TO REGEN HX. This normally closed, required open valve. The charging line is required to be available to provide RCS makeup. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-227	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0257:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - CHARGING PUMPS TO REGEN HX. This normally closed, required open valve. The charging line is required to be available to provide RCS makeup. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-228	
VFDR	Q2E21V0257:CLOSED:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - CHARGING PUMPS TO REGEN HX. This normally closed, required open valve. The charging line is required to be available to provide RCS makeup. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-229	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT OUTLET ISOLATION. This normally open, required open valve. The VCT outlet valve is required to be open prior to opening of the RWST suction valves to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-230	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT OUTLET ISOLATION. This normally open, required open valve. The VCT outlet valve is required to be open prior to opening of the RWST suction valves to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-231	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376B - VCT OUTLET ISOLATION. This normally open, required open valve. The VCT outlet valve is required to be open prior to opening of the RWST suction valves to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-232	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376B - VCT OUTLET ISOLATION. This normally open, required open valve. The VCT outlet valve is required to be open prior to opening of the RWST suction valves to prevent pump damage. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Reactivity Control, Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-233	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0183:CLOSED:CLOSED, EXCESS LETDOWN HX DISCHARGE - Q2E21V0183 - EXCESS LETDOWN HX DISCHARGE. This normally closed, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-234	
VFDR	Q2E21V0183:CLOSED:CLOSED, EXCESS LETDOWN HX DISCHARGE - Q2E21V0183 - EXCESS LETDOWN HX DISCHARGE. This normally closed, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-235	
VFDR	Q2E21V0246:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0246 - EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL). This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-236	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0246:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0246 - EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL). This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-237	
VFDR	Q2E21V0247:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0247 - EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL). This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-238	
VFDR	Q2E21V0247:OPEN:CLOSED, EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL) - Q2E21V0247 - EXCESS LETDOWN ISOLATION (UNDER REFUELING CANAL). This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-239	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0249A:OPEN:CLOSED, RCP SEAL WATER RETURN ISOLATION - Q2E21V0249A - RCP SEAL WATER RETURN ISOLATION. This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-240	
VFDR	Q2E21V0249A:OPEN:CLOSED, RCP SEAL WATER RETURN ISOLATION - Q2E21V0249A - RCP SEAL WATER RETURN ISOLATION. This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-241	
VFDR	Q2E21V0249B:OPEN:CLOSED, RCP SEAL WATER RETURN ISOLATION - Q2E21V0249B - RCP SEAL WATER RETURN ISOLATION. This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-242	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0249B:OPEN:CLOSED, RCP SEAL WATER RETURN ISOLATION - Q2E21V0249B - RCP SEAL WATER RETURN ISOLATION. This normally open, required closed valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-243	
VFDR	Q2E21V0250:TO VCT:TO VCT, EXCESS LETDOWN DIVERT VALVE - Q2E21V0250 - EXCESS LETDOWN DIVERT VALVE. This normally to VCT, required to VCT valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-244	
VFDR	Q2E21V0250:TO VCT:TO VCT, EXCESS LETDOWN DIVERT VALVE - Q2E21V0250 - EXCESS LETDOWN DIVERT VALVE. This normally to VCT, required to VCT valve. The letdown line is required to be isolated to conserve RCS inventory. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-245	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N21P0001A:ON/STANDBY:OFF, CONDENSATE PUMP 2A - N2N21P0001A - CONDENSATE PUMP 2A. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-246	
VFDR	N2N21P0001A:ON/STANDBY:OFF, CONDENSATE PUMP 2A - N2N21P0001A - CONDENSATE PUMP 2A. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-247	
VFDR	N2N21P0001B:ON/STANDBY:OFF, CONDENSATE PUMP 2B - N2N21P0001B - CONDENSATE PUMP 2B. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-248	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N21P0001B:ON/STANDBY:OFF, CONDENSATE PUMP 2B - N2N21P0001B - CONDENSATE PUMP 2B. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-249	
VFDR	N2N21P0001C:ON/STANDBY:OFF, CONDENSATE PUMP 2C - N2N21P0001C - CONDENSATE PUMP 2C. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-250	
VFDR	N2N21P0001C:ON/STANDBY:OFF, CONDENSATE PUMP 2C - N2N21P0001C - CONDENSATE PUMP 2C. This normally on/standby, required off pump. The condensate pumps can injection fluid into the steam generator if and when the steam generator pressure has sufficiently decreased. This results in uncontrolled SG level and may result in overcooling and loss of TDAFW. Fire induced damage to cables and loss of control power in the control room and no controls on the PCS prevent ability to control pump, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-251	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B31V0061:OPEN:OPEN/CLOSED-HSPB, PRESSURIZER POWER OPERATED RELIEF VALVE - Q2B31V0061 - PRESSURIZER POWER OPERATED RELIEF VALVE. This normally closed, required closed valve. The PORV line is required to be isolated to prevent uncontrolled RCS inventory losses and pressure transients. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-252	
VFDR	Q2B31V0061:OPEN:OPEN/CLOSED-HSPB, PRESSURIZER POWER OPERATED RELIEF VALVE - Q2B31V0061 - PRESSURIZER POWER OPERATED RELIEF VALVE. This normally closed, required closed valve. The PORV line is required to be isolated to prevent uncontrolled RCS inventory losses and pressure transients. Fire induced damage to cables are not isolated from the control room for operation at the PCS, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-253	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - Q2P15SV3103 - PRESSURIZER LIQUID SAMPLE ISOLATION. This normally close, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-254	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3103:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID SAMPLE ISOLATION - Q2P15SV3103 - PRESSURIZER LIQUID SAMPLE ISOLATION. This normally close, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-255	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - Q2P15SV3104 - PRESSURIZER STEAM SAMPLE ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-256	
VFDR	Q2P15SV3104:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM SAMPLE ISOLATION - Q2P15SV3104 - PRESSURIZER STEAM SAMPLE ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-257	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3331:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM TO GFFD ISOLATION - Q2P15SV3331 - PRESSURIZER STEAM TO GFFD ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-258	
VFDR	Q2P15SV3331:CLOSED:OPEN/CLOSED, PRESSURIZER STEAM TO GFFD ISOLATION - Q2P15SV3331 - PRESSURIZER STEAM TO GFFD ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-259	
VFDR	Q2P15SV3332:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID ISOLATION - Q2P15SV3332 - PRESSURIZER LIQUID ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-260	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3332:CLOSED:OPEN/CLOSED, PRESSURIZER LIQUID ISOLATION - Q2P15SV3332 - PRESSURIZER LIQUID ISOLATION. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-261	
VFDR	Q2P15SV3333:CLOSED:OPEN/CLOSED, RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID - Q2P15SV3333 - RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-262	
VFDR	Q2P15SV3333:CLOSED:OPEN/CLOSED, RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID - Q2P15SV3333 - RX LOOPS 2 AND 3 SAMPLE ISOLATION SOLENOID. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-263	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - RCS HOT LEG SAMPLE ISOLATION SOLENOID. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-264	
VFDR	Q2P15SV3765:CLOSED:OPEN/CLOSED, RCS HOT LEG SAMPLE ISOLATION SOLENOID - Q2P15SV3765 - RCS HOT LEG SAMPLE ISOLATION SOLENOID. This normally closed, required closed valve. The sample lines are required to be isolated to minimize RCS inventory losses. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-265	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LHSI PUMP. This normally off, required off pump. The LHSI pump are required off to prevent damage of pump for NPO mode. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the NPO Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-266	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11P0001A:OFF:ON/OFF, 2A RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LHSI PUMP. This normally off, required off pump. The LHSI pump are required off to prevent damage of pump for NPO mode. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the NPO Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-267	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001B - 2B RHR/LHSI PUMP. This normally off, required off pump. The LHSI pump are required off to prevent damage of pump for NPO mode. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the NPO Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-268	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001B - 2B RHR/LHSI PUMP. This normally off, required off pump. The LHSI pump are required off to prevent damage of pump for NPO mode. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the NPO Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-269	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371A:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-270	
VFDR	Q2N11PV3371A:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-271	
VFDR	Q2N11PV3371A:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - MAIN STEAM ATMOS RELIEF. This normally open, required modulated valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-272	
VFDR	Q2N11PV3371A:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A - MAIN STEAM ATMOS RELIEF. This normally open, required modulated valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-273	
VFDR	Q2N11PV3371B:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371B - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-274	
VFDR	Q2N11PV3371B:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371B - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-275	
VFDR	Q2N11PV3371C:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371C - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-276	
VFDR	Q2N11PV3371C:OPEN:MODULATE-HSP, MAIN STEAM ATMOS RELIEF - Q2N11PV3371C - MAIN STEAM ATMOS RELIEF. This normally open, required closed valve. ARV operation at HSP is disabled due to loss of DC power. Fire induced damage to power supply disables operation at HSP, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-277	
VFDR	Q2N11V0001A:OPEN:CLOSED-HSPG, 2A SG MSIV - Q2N11V0001A - 2A SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-278	
VFDR	Q2N11V0001A:OPEN:CLOSED-HSPG, 2A SG MSIV - Q2N11V0001A - 2A SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-279	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11V0001B:OPEN:CLOSED-HSPG, 2B SG MSIV - Q2N11V0001B - 2B SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-280	
VFDR	Q2N11V0001B:OPEN:CLOSED-HSPG, 2B SG MSIV - Q2N11V0001B - 2B SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-281	
VFDR	Q2N11V0001C:OPEN:CLOSED-HSPG, 2C SG MSIV - Q2N11V0001C - 2C SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-282	
VFDR	Q2N11V0001C:OPEN:CLOSED-HSPG, 2C SG MSIV - Q2N11V0001C - 2C SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-283	
VFDR	Q2N11V0002A:OPEN:CLOSED, 2A SG MSIV - Q2N11V0002A - 2A SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-284	
VFDR	Q2N11V0002A:OPEN:CLOSED, 2A SG MSIV - Q2N11V0002A - 2A SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-285	
VFDR	Q2N11V0002B:OPEN:CLOSED, 2B SG MSIV - Q2N11V0002B - 2B SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-040-PCS-286	
VFDR	Q2N11V0002B:OPEN:CLOSED, 2B SG MSIV - Q2N11V0002B - 2B SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-287	
VFDR	Q2N11V0002C:OPEN:CLOSED, 2C SG MSIV - Q2N11V0002C - 2C SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-288	
VFDR	Q2N11V0002C:OPEN:CLOSED, 2C SG MSIV - Q2N11V0002C - 2C SG MSIV. This normally open, required closed valve. The MSIVs are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-289	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N12HV3226:CLOSED:CLOSED, TDAFW TURBINE STEAM SUPPLY ISOLATION - Q2N12HV3226 - TDAFW TURBINE STEAM SUPPLY ISOLATION. This normally closed, required closed valve. The TDAFW steam lines are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-290	
VFDR	Q2N12HV3226:CLOSED:CLOSED, TDAFW TURBINE STEAM SUPPLY ISOLATION - Q2N12HV3226 - TDAFW TURBINE STEAM SUPPLY ISOLATION. This normally closed, required closed valve. The TDAFW steam lines are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-291	
VFDR	Q2N12LV3608:CLOSED:MODULATE, TDAFW PUMP STEAM SUPPLY LINE AUTOMATIC DRAIN - Q2N12LV3608 - TDAFW PUMP STEAM SUPPLY LINE AUTOMATIC DRAIN. This normally closed, required closed valve. The TDAFW steam lines are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-292	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N12LV3608:CLOSED:MODULATE, TDAFW PUMP STEAM SUPPLY LINE AUTOMATIC DRAIN - Q2N12LV3608 - TDAFW PUMP STEAM SUPPLY LINE AUTOMATIC DRAIN. This normally closed, required closed valve. The TDAFW steam lines are required closed to control SG pressure. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-293	
VFDR	Q2N23HV3227A:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 2A - Q2N23HV3227A - AFW SUPPLY TO STEAM GENERATOR 2A. This normally open, required throttled valve. The AFW feed is required to be throttled to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-294	
VFDR	Q2N23HV3227A:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 2A - Q2N23HV3227A - AFW SUPPLY TO STEAM GENERATOR 2A. This normally open, required throttled valve. The AFW feed is required to be throttled to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-295	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3227B:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 2B - Q2N23HV3227B - AFW SUPPLY TO STEAM GENERATOR 2B. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-296	
VFDR	Q2N23HV3227B:OPEN:THROTTLED, AFW SUPPLY TO STEAM GENERATOR 2B - Q2N23HV3227B - AFW SUPPLY TO STEAM GENERATOR 2B. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-297	
VFDR	Q2N23HV3227C:OPEN:THROTTLED, MDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23HV3227C - MDAFW SUPPLY TO STEAM GENERATOR 2C. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-298	

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3227C:OPEN:THROTTLED, MDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23HV3227C - MDAFW SUPPLY TO STEAM GENERATOR 2C. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-299	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23HV3228B - TDAFW SUPPLY TO STEAM GENERATOR 2B. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-300	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 2B - Q2N23HV3228B - TDAFW SUPPLY TO STEAM GENERATOR 2B. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-301	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23HV3228C:OPEN:THROTTLED-HSPF, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23HV3228C - TDAFW SUPPLY TO STEAM GENERATOR 2C. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-302	
VFDR	Q2N23HV3228C:OPEN:THROTTLED-HSPF, TDAFW SUPPLY TO STEAM GENERATOR 2C - Q2N23HV3228C - TDAFW SUPPLY TO STEAM GENERATOR 2C. This normally open, required closed valve. The AFW feed is required to be throttled or closed to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-303	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - Q2N23P0001A - 2A MDAFW PUMP. This normally off, required on pump. The AFW pump is required to be operated to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-304	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23P0001A:OFF:ON/OFF, 2A MDAFW PUMP - Q2N23P0001A - 2A MDAFW PUMP. This normally off, required on pump. The AFW pump is required to be operated to control SG feed. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-305	
VFDR	Q2P16V0539:CLOSED:OPEN, SW RECIRC TO POND TRAIN A - Q2P16V0539 - SW RECIRC TO POND TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-306	
VFDR	Q2P16V0539:CLOSED:OPEN, SW RECIRC TO POND TRAIN A - Q2P16V0539 - SW RECIRC TO POND TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-307	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0539:CLOSED:OPEN, SW RECIRC TO POND TRAIN A - Q2P16V0539 - SW RECIRC TO POND TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-308	
VFDR	Q2P16V0539:CLOSED:OPEN, SW RECIRC TO POND TRAIN A - Q2P16V0539 - SW RECIRC TO POND TRAIN A. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-309	
VFDR	Q2P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - Q2P16V0546 - TRAIN A SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-310	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - Q2P16V0546 - TRAIN A SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-311	
VFDR	Q2P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - Q2P16V0546 - TRAIN A SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-312	
VFDR	Q2P16V0546:OPEN:OPEN/CLOSED, TRAIN A SW DISCHARGE TO RIVER - Q2P16V0546 - TRAIN A SW DISCHARGE TO RIVER. This normally closed, required closed valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-313	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Q2P16V0538 - SW RECIRC TO POND TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-314	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Q2P16V0538 - SW RECIRC TO POND TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-315	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Q2P16V0538 - SW RECIRC TO POND TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-316	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P16V0538:CLOSED:OPEN, SW RECIRC TO POND TRAIN B - Q2P16V0538 - SW RECIRC TO POND TRAIN B. This normally open, required open valve. The service water system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-317	
VFDR	Q2P17P0001B:STANDBY:ON-ALIGNED TRAIN A, 2B COMPONENT COOLING WATER PUMP - Q2P17P0001B - 2B COMPONENT COOLING WATER PUMP. This normally standby, required on pump. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-318	
VFDR	Q2P17P0001B:STANDBY:ON-ALIGNED TRAIN A, 2B COMPONENT COOLING WATER PUMP - Q2P17P0001B - 2B COMPONENT COOLING WATER PUMP. This normally standby, required on pump. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-319	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P17P0001C:STANDBY:ON, 2C COMPONENT COOLING WATER PUMP - Q2P17P0001C - 2C COMPONENT COOLING WATER PUMP. This normally standby, required on pump. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-320	
VFDR	Q2P17P0001C:STANDBY:ON, 2C COMPONENT COOLING WATER PUMP - Q2P17P0001C - 2C COMPONENT COOLING WATER PUMP. This normally standby, required on pump. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-321	
VFDR	Q2P17V0030:CLOSED:OPEN-HSP, CCW TO SEC HXS - Q2P17V0030 - CCW TO SEC HXS. This normally open, required open valve. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-322	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2P17V0030:CLOSED:OPEN-HSP, CCW TO SEC HXS - Q2P17V0030 - CCW TO SEC HXS. This normally open, required open valve. The CCW system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control valve, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-040-PCS-323	
VFDR	Q2R15A0505:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2K - Q2R15A0505 - 4160V SWITCHGEAR BUS 2K. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-324	
VFDR	Q2R15A0505:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2K - Q2R15A0505 - 4160V SWITCHGEAR BUS 2K. This normally energized, required energized switchgear. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-325	
VFDR	Q2R42E0001A:ENERGIZED:ENERGIZED, BATTERY CHARGER 2A - Q2R42E0001A - BATTERY CHARGER 2A. This normally energized, required energized battery charger. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-326	
VFDR	Q2R42E0001A:ENERGIZED:ENERGIZED, BATTERY CHARGER 2A - Q2R42E0001A - BATTERY CHARGER 2A. This normally energized, required energized battery charger. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-327	
VFDR	Q2R42E0002A:AVAILABLE:AVAILABLE, 125V BATTERY 2A - Q2R42E0002A - 125V BATTERY 2A. This normally available, required available battery. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-328	
VFDR	Q2R42E0002A:AVAILABLE:AVAILABLE, 125V BATTERY 2A - Q2R42E0002A - 125V BATTERY 2A. This normally available, required available battery. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable risk and DID criteria.	
VFDR ID	U2-2-040-PCS-329	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Q2R43E0001B - SEQUENCER BUS 2G. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-330	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Q2R43E0001B - SEQUENCER BUS 2G. This normally available, required available sequencer. The electrical system is required to operate for various system support. Fire induced damage to cables in the control room and no controls on the PCS prevent ability to control electrical system components, and a challenge to the Vital Auxiliaries Nuclear Safety Performance Criteria.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-040-PCS-331	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - Q2B41P0001A - RCP 2A. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-332	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - Q2B41P0001A - RCP 2A. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-333	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - Q2B41P0001B - RCP 2B. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-334	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - Q2B41P0001B - RCP 2B. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-335	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - Q2B41P0001C - RCP 2C. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-040-U2 - Cable Spreading Room	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-336	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - Q2B41P0001C - RCP 2C. This normally on, required off pump. The RCPs are required off to remove heat generated by running pumps added to RCS and limit RCS inventory losses thru seals. Fire induced damage to cables and loss of dc control power in the control room and no controls on the PCS prevent ability to control pumps, and a challenge to the Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-040-PCS-337	
VFDR	QSP16V0508:OPEN:OPEN, SW TO POND EAST HEADER ISOLATION - This valve or the wet pit discharge valve must be open to provide return path for service water. Fire induced circuit failure to valve QSP16V0508 and QSP16V0506 could result in spurious isolation of return line. This failure challenges the Vital Auxiliaries Nuclear Safety Performance Criterion. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2335-U1	2335 Load Center Room, Train A
2343-U1	2343 Load Center Room, Train A
2346-U1	2346 Switchgear and M-G Set Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-041-U1 - Train A Switchgear & Load Center Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of carbon dioxide suppression systems will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Engineering Evaluations
2-041-U1 - Train A Switchgear & Load Center Rooms NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID Revision	SM-C051326701-006 Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-041-U1 - Train A Switchgear & Load Center Rooms		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-39 [2335, 2343, 2346]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-39 [2335, 2343, 2346]	Risk Criteria	Required to meet risk criteria.
Detection	2A-39 [2335, 2343, 2346]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-37	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-37	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-37	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-38	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-38	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-38	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-40 [2335, 2343]	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-40 [2335, 2343]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-40 [2335, 2343]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-41	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-41	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-41	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-42 [2343]	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-42 [2343]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-42 [2343]	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-041-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with fire rated cables and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.95E-07	
Δ LERF	5.10E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-041-SEP-001	
VFDR	Q1E21P0002A:STANDBY:ON/OFF, 1A CHARGING/HHSI PUMP - Q1E21P0002A - 1C Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-041-SEP-002	
VFDR	Q1R15A0006:ENERGIZED:ENERGIZED-SUT1A, 4160V SWITCHGEAR BUS 1F - Q1R15A0006 - 4160V Switchgear Bus 1F. The bus is normally in energized, required energized to supply loads. Fire induced cable damage can disable the bus, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-041-SEP-004	
VFDR	Q1R15A0503:ENERGIZED:ENERGIZED-BUS1F, 4160V SWITCHGEAR BUS 1H - Q1R43E0503 - 4160V Switchgear Bus 1H. The bus is normally energized, required energized to support service water to pond for HVAC support of Bus 1F. The loss of sequencer can disable service water support for diesel generator, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-041-SEP-005	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R16B0508:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1R/2R - Q1R16B0508 - 600V Load Center 1R/2R. The load center is normally energized, required energized to support EDG 1-2A. Fire induced cable damage can disable the diesel generator to load onto Bus 1F and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-041-SEP-006	
VFDR	Q1R17B0509:ENERGIZED:ENERGIZED-U1, MOTOR CONTROL CENTER 1S - Q1R17B0509 - Motor Control Center 1S. The MCC is normally energized, required energized to support EDG 1-2A. Fire induced cable damage can disable the diesel generator to load onto Bus 1F and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-041-SEP-007	
VFDR	Q1R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 1F - Q1E21P0002A - 1C Charging/HHSI Pump; Q1R43E0001A - Sequencer Bus 1F. The pump is normally in Standby, required off, required off; sequencer normally available, required available, required to turn off pump to prevent overcharging, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U1-2-041-SEP-008	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U1 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q1R43E0501A:AVAILABLE:AVAILABLE-SHED, SEQUENCER BUS 1H - Q1R43E0501A - Sequencer Bus 1H. The sequencer is normally available, required available to support service water to pond for HVAC support of Bus 1F. The loss of sequencer can disable service water support for diesel generator, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2335-U2	2335 Load Center Room, Train A
2343-U2	2343 Load Center Room, Train A
2346-U2	2346 Switchgear and M-G Set Room

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-041-U2 - Train A Switchgear & Load Center Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring normal and auxiliary spray valves remain closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train B PORV for pressure reduction and Pressurizer Heater Group B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-041-U2 - Train A Switchgear & Load Center Rooms Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG-2B. 2. 4. 16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled. Initiation of carbon dioxide suppression systems will not damage components needed for safe shutdown; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Engineering Evaluation ID	ENGDOC, SM-97-1561-001	Fire Barrier Penetration Seal Limiting Design Parameter Evaluation
Revision	1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID	SM-C051326701-006	Identify Regulatory Fire Barriers
Revision	3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-041-U2 - Train A Switchgear & Load Center Rooms		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-39 [335, 2343, 2346]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-39 [335, 2343, 2346]	Risk Criteria	Required to meet risk criteria.
Detection	2A-39 [335, 2343, 2346]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-37	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-37	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-37	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-38	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-38	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-38	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-40 [2335, 2343]	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-40 [2335, 2343]	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-40 [2335, 2343]	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-41	EEEE/LA	Required to support a fire area boundary evaluation.
Gaseous Suppression	2A-41	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-41	DID Criteria	Required to meet DID criteria.
Gaseous Suppression	2A-42	Risk Criteria	Required to meet risk criteria.
Gaseous Suppression	2A-42	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Procedures / Guidance		Risk Criteria	Improvements to procedures necessary to incorporate recovery actions required to meet risk criteria.
Modifications		Risk Criteria	Modification to install a fuse for cable 2VAJ5007L in panel Q2H25L004-A and to replace trip device in panel Q2R42B0001A, breaker LA13.
Modifications		DID Criteria	Modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-041-U2 - Train A Switchgear & Load Center Rooms NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Fire Risk Evaluation
Title	FRE for Fire Area 2-041-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with modification(s), specified recovery actions, fire rated cable, and the installed detection and suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	1.69E-06	
Δ LERF	2.34E-08	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, modification to provide Train B power to the temperature recorder to maintain RCS temperature indication for Loop 2 when Train A power is not available, enhanced transient restrictions and the installed detection and in cabinet CO2 suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained."	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-041-ASSO-001	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-EDG2B, 4160V SWITCHGEAR BUS 2G - Q2R15A0007 - 4160V Switchgear Bus 2G. The switchgear is normally energized required energized. Fire induced cable damage to load power cable concurrent with fault on breaker control circuit can prevent power to bus may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-IA-001	
VFDR	Q2B31V0061:CLOSED:OPEN/CLOSED, PRESSURIZER POWER OPERATED RELIEF VALVE - This component requires instrument air to perform its credited function. Instrument air is assumed to be unavailable in this fire area because air loss paths have not been identified. Q2B31V0061 - Pressurizer Power Operated Relief Valve. The normally closed PORV valve required to cycle to control RCS pressure transient. Fire induced damage to instrument air components may result in spuriously closing of the valves, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-041-SEP-001	
VFDR	N2B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-041-SEP-002	
VFDR	N2B21TR0413:AVAILABLE-TE423:AVAILABLE-TE423, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-041-SEP-003	
VFDR	N2B21TR0410:AVAILABLE-TE430:AVAILABLE-TE430, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	
VFDR ID	U2-2-041-SEP-004	
VFDR	N2B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE430) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE433) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 3 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that modification(s) are required to meet applicable DID criteria.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-041-SEP-005	
VFDR	Q2B31L0001A:ON/OFF/OFF, PRESSURIZER HEATER GROUP 2A DISTRIBUTION PANEL - Q2B31L0001A - Pressurizer Heater Group 2A Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-006	
VFDR	N2B31L0001C:ON/OFF, PRESSURIZER HEATER GROUP 2C DISTRIBUTION PANEL - N2B31L0001C - Pressurizer Heater Group 2C Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-007	
VFDR	N2B31L0001D:ON/OFF, PRESSURIZER HEATER GROUP 2D DISTRIBUTION PANEL - N2B31L0001D - Pressurizer Heater Group 2D Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-008	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11V0025A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP (INSIDE ENCAPSULATION) - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-009	
VFDR	Q2E11V0026A:CLOSED:CLOSED, CONTAINMENT SUMP TO 2A RHR PUMP - Q2E11V0025A - Containment Sump to 2A RHR Pump; Q2E11V0026A - Containment Sump to 2A RHR Pump. The valves are normally closed, required closed to prevent loss of RWST to Sump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of borated water to charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-012	
VFDR	Q2E21P0002A:ON:ON/OFF, 2A CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-013	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN A, 2B CHARGING PUMP - Q2E21P0002A - 2A Charging Pump; Q2E21P0002B - 2B Charging Pump Q2R41L0001B - 125Vdc Distribution Panel 2B; Q2R43E0001A - Sequencer Bus 2F. The pump is normally in Standby, required off; sequencer normally available, required available, and panel normally energized, required energized. Fire induced cable damage and cascading power supply failures can prevent tripping the pumps, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-014	
VFDR	Q2E21V0016A:CLOSED:CLOSED, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016A - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage generates SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-015	
VFDR	Q2E21V0016B:CLOSED:CLOSED-TRAIN B, HHSI TO RCS COLD LEG ISOLATION - Q2E21V0016B - HHSI to RCS Cold Leg Isolation. The valve is normally closed, required closed to prevent charging pump run out. Fire induced damage generates SIAS signal to cause failure of charging pump, and a challenge to the Reactivity Control and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-016	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0258:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0258 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-017	
VFDR	Q2E21V0257:OPEN:OPEN, CHARGING PUMPS TO REGEN HX - Q2E21V0257 - Charging Pumps to Regen HX. The valve is normally open, required to open to maintain RCS inventory. Fire induced spurious SIAS signal generated once the battery is depleted may close the valve preventing ability to provide charging, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-018	
VFDR	Q2E21V0347:MODULATED:MODULATE, CHARGING FLOW CONTROL VALVE - Q2E21V0347 - Charging Flow Control Valve. The valve is normally throttled, required to throttle to maintain RCS inventory. Fire induced damage due to instrument air components and cascading power supply failure prevent ability to maintain reactivity and inventory control, and a challenge to the Reactivity and RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-019	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21V0376A:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-020	
VFDR	Q2E21V0376B:OPEN:OPEN, VCT OUTLET ISOLATION - Q2E21V0376A - VCT Outlet Isolation; Q2E21V0376B - VCT Outlet Isolation. The valve is normally open, required open to supply VCT to charging pump. Fire induced damage to instruments cabinets power supplies generate SIAS after battery depletion or environmental failure can spuriously operate valves to cause failure of charging pump, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-021	
VFDR	Q2E11LR3594B:AVAILABLE:AVAILABLE, POST ACCIDENT CONTAINMENT WATER LEVEL - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced cable damage, spurious SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-022	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E11P0001B:OFF:ON/OFF, 2B RHR/LHSI PUMP - Q2E11P0001A - 2A RHR/LPSI Pump; Q2E11P0001B - 2B RHR/LPSI Pump; Q2R43E0001A - Sequencer Bus 2F. The pump is normally off, required off to prevent pump damage prior to transitioning to a NPO mode shutdown. Fire induced cable damage, spurious SIAS signal and / or damage to sequencer may spuriously start pump, and a challenge to the RCS Inventory and Pressure Control and Decay Heat Removal NPO Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-023	
VFDR	N2C55NI0031A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-31A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-041-SEP-024	
VFDR	N2C55NI0032A:AVAILABLE:AVAILABLE, SOURCE RANGE COUNT RATE INDICATOR NI-32A - N2C55NI0031A - Source Range Count Rate Indicator NI-31A and Q2R21L0001A - 120V Vital AC Instrument Panel 2A; N2C55NI0032A - Source Range Count Rate Indicator NI-32A and Q2R21L0001B - 120V Vital AC Instrument Panel 2B. The indicator is normally available, required available to monitor shutdown margin. Fire induced damage due to cascading power supply failures prevent the ability to monitor the achievement of adequate shutdown margin, and a challenge to the Reactivity Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-041-SEP-025	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N11PV3371B:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q2N11PV3371B - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-041-SEP-026	
VFDR	Q2N11PV3371C:CLOSED:MODULATE, MAIN STEAM ATMOS RELIEF - Q2N11PV3371C - Main Steam Atmos Relief. The valve is normally closed, required to cycle to control steam generator pressure. Fire induced damage from instrument air components and cascading power supply failures prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that recovery actions(s) are required to meet applicable risk criteria.	
VFDR ID	U2-2-041-SEP-027	
VFDR	Q2N12V0001A:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235A - Q2N12V0001A - TDAFP Steam Supply Isolation Valve HV3235A. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-028	

Attachment C **Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)**

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

VFDR	Q2N12V0001B:CLOSED:CLOSED, TDAFP STEAM SUPPLY ISOLATION VALVE HV3235B - Q2N12V0001B - TDAFP Steam Supply Isolation Valve HV3235B. The valve is normally closed, required closed to prevent uncontrolled TDAFW supply to steam generator and overfill. Fire induced cable damage and cascading power supply to instruments cabinets generate a spurious signal, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-041-SEP-029
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VFDR	Q2N23HV3228A:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1A - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-041-SEP-030
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VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228A - TDAFW Supply to Steam Generator 2A. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.
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Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.
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VFDR ID	U2-2-041-SEP-031
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Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions.	
VFDR	Q2N23HV3228B:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1B - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-032	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228B - TDAFW Supply to Steam Generator 2B. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-033	
VFDR	Q2N23HV3228C:OPEN:THROTTLED, TDAFW SUPPLY TO STEAM GENERATOR 1C - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-034	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2N23P0002:OFF:ON/OFF, TURBINE DRIVEN AUX FEEDWATER PUMP - Q2N23P0002 - TDAFW Pump; Q2N23HV3228C - TDAFW Supply to Steam Generator 2C. The pump is normally off, required off and the valve is normally open, required to close to isolate TDAFW to Steam Generator. Fire induced cable damage, instrument air component failures, cascading power supply failures and spurious actuation signals may spuriously operate valve, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-035	
VFDR	Q2B41P0001A:ON:OFF, RCP 2A - Q2B41P0001A - RCP 2A. The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage and cascading power supply failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-036	
VFDR	Q2B41P0001B:ON:OFF, RCP 2B - Q2B41P0001B - RCP 2B. The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage and cascading power supply failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-041-SEP-037	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-041-U2 - Train A Switchgear & Load Center Rooms	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2B41P0001C:ON:OFF, RCP 2C - Q2B41P0001C - RCP 2C. The pump is normally on, required off to prevent RCS inventory losses. Fire induced cable damage and cascading power supply failures may prevent pump trip, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U1 - Aux Building Hallways & Corridor	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2319-U1	2319 Corridor - Train B
2339-U1	2339 Corridor - Train A
2345-U1	2345 Hallway - Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-042-U1 - Aux Building Hallways & Corridor Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump or swing charging pump via Train B power.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump or swing charging pump via Train B power aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves, a letdown isolation valve, or a letdown path containment isolation valve. Excess letdown is isolated using one or more excess letdown or containment isolation valves. PZR PORV leakage paths are isolated using Train A PORV and Train B PORV. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by tripping all RCPs, maintaining normal seal injection using Train B charging pump or swing charging pump via Train B power, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are shut off. Undesired pressure increase is prevented by deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with Train A PORV, Train B PORV or aux spray for pressure reduction and Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U1 - Aux Building Hallways & Corridor	Performance Goals
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump and TDAFW pump supplying Steam Generator 1A/1B/1C. Main feed is isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Shutdown margin is monitored by source range detector Ch 1/Ch 2. 2. RCS Pressure - RCS pressure is monitored by PZR narrow range Ch 1/Ch 2/Ch 3, PZR non-safety channel, and RCS wide range pressure for Loop 1/Loop 3. 3. Pressurizer Level - Pressurizer level is monitored by PZR level Ch 1/Ch 2/Ch 3. 4. RCS Temperature - RCS Loop 1/Loop 2/Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Steam Generator 1A/1B/1C pressure is monitored. 6. SG Level - Steam Generator 1A/1B/1C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by off-site power via SUT 1A/SUT 1B, diesel generator EDG-1B. 2. 4.16 kV and 600 V power is supplied by Train A/Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train A/Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train A/Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:		Engineering Evaluations
2-042-U1 - Aux Building Hallways & Corridor NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID Revision	SM-C051326701-006 Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U1 - Aux Building Hallways & Corridor	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-042-U1 - Aux Building Hallways & Corridor		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-59	Risk Criteria	Required to meet risk criteria.
Detection	2A-59	DID Criteria	Required to meet DID criteria.
Detection	2A-59	Separation	Required to support the use of MI cable.
Detection	2A-59 [2345]	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-59 [2345]	Risk Criteria	Required to meet risk criteria.
Detection	2A-59 [2345]	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-59	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-59	Separation	Required to support the use of MI cable.
Water Suppression	2A-59 [2345]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-59 [2345]	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Separation	Required to support the NSCA
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	One Hour Rated Cable	Separation	Required to support the NSCA.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U1 - Aux Building Hallways & Corridor	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-042-U1	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the implementation of fire rated cables and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	2.21E-09	
Δ LERF	7.30E-12	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, the installed detection system was identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U1 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U1-2-042-SEP-031	
VFDR	Q1R16B0508:ENERGIZED:ENERGIZED-U1, 600V LOAD CENTER 1R/2R - Q1R16B0508 - 600V Load Center 1R/2R. The bus is normally energized, required energized to support service water to pond for HVAC support of bus 1F. The loss of the bus is can cause failure of offsite power supply, and a challenge to electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U1-2-042-SEP-037	
VFDR	Q2R43E0001A:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2F. The sequencer normally available, required available. Fire induced cable damage can prevent proper operation of loads, and a challenge to the electrical support Vital Auxiliaries Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	Fire Area Definition
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

Fire Zone ID	Description
2319-U2	2319 Corridor - Train B
2339-U2	2339 Corridor - Train A
2345-U2	2345 Hallway - Train A

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-042-U2 - Aux Building Hallways & Corridor Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
1 Primary Control Station	Plant shutdown is performed from the Control Room.	
2.1 Reactivity Control - Reactor Trip	Reactor is manually tripped from the Control Room.	
2.2 Reactivity Control - Maintain Subcritical Conditions	Subcritical conditions are maintained by isolating the VCT to prevent boron dilution and by charging borated water from the RWST using Train B charging pump.	
3.1 RCS Inventory Control - RCS Makeup	RCS inventory is controlled using Train B charging pump aligned to the RWST.	
3.2 RCS Inventory Control - Isolate Leakage Paths	Normal letdown is isolated using orifice isolation valves. Excess letdown is isolated using excess letdown isolation valves. PZR PORV leakage paths are isolated using Train A PORV and performance-based approach Train B PORV or block valve. The RCS to RHR high/low pressure interface is isolated using the Train A/Train B RHR inboard isolation valve and Train A/Train B RHR outboard isolation valve.	
3.3 RCS Inventory Control - RCP Seal Integrity	Maintain RCP Seal Integrity - RCP seal integrity is maintained by performance-based approach tripping all RCPs, maintaining normal seal injection using Train B charging pump, and preventing failure of the RCP thermal barriers. RCP seal injection paths are secured by isolating the supply and discharge seal injection lines. CCW to RCP thermal barriers are performance-based approach isolated using containment isolation valves or the CCW to RCP thermal barrier isolation valve.	
4.1 RCS Pressure Control - Pressure Transient	Undesired depressurization due to inadvertent spray is prevented by ensuring auxiliary spray valve remains closed and the Loop 1 and Loop 2 RCPs are performance-based approach shut off. Undesired pressure increase is prevented by performance-based approach deenergizing all pressurizer heater groups.	
4.2 RCS Pressure Control - Positive Pressure Control	Positive control of RCS pressure is accomplished with performance-based approach Train A PORV for pressure reduction and performance-based approach Pressurizer Heater Group A/B for pressure increase.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-042-U2 - Aux Building Hallways & Corridor Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions		Performance Goals
Performance Goal	Method of Accomplishment	Comments
5 Decay Heat Removal	Decay heat removal during HSD is accomplished using Train B MDAFW pump supplying Steam Generator 2C. Main feed is performance-based approach isolated to prevent uncontrolled cooldown.	
6 Process Monitoring	1. Shutdown Margin - Performance-based approach shutdown margin is monitored. 2. RCS Pressure - Performance-based approach RCS pressure is monitored by PZR narrow range Ch 3, PZR non-safety channel, RCS wide range pressure for Loop 1. 3. Pressurizer Level - Performance-based approach pressurizer level is monitored by PZR level Ch 3. 4. RCS Temperature - Performance-based approach RCS Loop 3 temperature is monitored by loop hot and cold leg RTDs. 5. SG Pressure - Performance-based approach Steam Generator 2A/2B/2C pressure is monitored. 6. SG Level - Performance-based approach Steam Generator 2A/2B/2C level is monitored.	
7.1 Vital Auxiliaries – Electrical	1. Electrical power is supplied by diesel generator EDG-2B. 2. 4.16 kV and 600 V power is supplied by Train B distribution equipment. 3. 125 VDC power and 120 VAC power is supplied by Train B equipment.	
7.2 Vital Auxiliaries – Service Water	Train B service water is provided with two service water pumps in service recirculating to the pond or Train B service water is provided with one service water pump in service recirculating to the pond and non-essential turbine building loads isolated.	
7.3 Vital Auxiliaries – Component Cooling Water	Performance-based approach Train B component cooling water is provided with non-essential loads isolated.	
7.4 Vital Auxiliaries – HVAC	Control Room cooling is provided by Train B HVAC. Room cooling at essential locations is provided with HVAC equipment corresponding to the service water train.	

Fire Suppression Activities Effect on Nuclear Safety Performance Criteria

Safe and stable conditions can be achieved and maintained utilizing equipment and cables that have been reviewed to be unaffected by the effects of fire suppression activities in adjacent areas. Essential equipment is protected from damage due to flooding from operation of the fire suppression system by drains and curbs and/or by mounting essential equipment on pedestals or supports. Discharge of manual suppression water to adjacent compartments is controlled; therefore, fire suppression activities will not adversely affect the plant's ability to achieve the nuclear safety performance criteria.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: Compliance Basis:	2-042-U2 - Aux Building Hallways & Corridor NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	Engineering Evaluations
Engineering Evaluation ID Revision	ENGDOC, SM-97-1561-001 Fire Barrier Penetration Seal Limiting Design Parameter Evaluation 1	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>Evaluate various penetration seals which, as a result of plant walkdowns of as built configurations, exhibited one or more Limiting Design Parameters (LDPs) which were outside limits previously established via qualification test reviews.</p> <p>Bases for Acceptability:</p> <p>The basis of the evaluation was to establish the acceptability of the field established configurations through either:</p> <ul style="list-style-type: none"> • Utilizing engineering judgment based on additional reviews of test reports to justify the LDP in question; • Refinement of field judgments through review of design drawing/documentation; or • Establishing additional technical bases which allowed reapplication of acceptance criteria for LDPs. 	
Engineering Evaluation ID Revision	SM-C051326701-006 Identify Regulatory Fire Barriers 3	
Inactive	No	
Functionally Equivalent	No	
Adequate for the Hazard	Yes	
Summary	<p>Purpose:</p> <p>This report includes engineering equivalency evaluations for several fire area boundaries in Units 1 and 2 power block buildings, as well as the shared areas such as SWIS, RWIS and the Diesel Generator Building. The approach was to examine any boundary for which there was not a documented/credited 3-hr rated barrier. Evaluations were also included non-rated reach rod penetrations and separation between pressure sensing lines.</p> <p>Bases for Acceptability:</p> <ul style="list-style-type: none"> • The fire areas, fire zones and rooms on both sides of the barrier were identified, • The construction of the boundary and the potential issue with the element in question was described, • The fire hazards and fire protection features on both sides of the barrier were described, • Elements with construction features equal to 3-hr boundaries were credited as such, 	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	Engineering Evaluations
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	

- The evaluation demonstrates that elements with construction features not equivalent to 3-hr rated boundaries are adequate for the hazard.

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID: 2-042-U2 - Aux Building Hallways & Corridor		Required Fire Protection Systems and Features	
Compliance Basis: NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions			
Required FP System(s)/Feature(s)	Description	Required By	Comments
Detection	2A-59	EEEE/LA	Required to support a fire area boundary evaluation.
Detection	2A-59	Risk Criteria	Required to meet risk criteria.
Detection	2A-59	DID Criteria	Required to meet DID criteria.
Water Suppression	2A-59 [2319, 2339]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-59 [2319, 2339]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-59 [2345]	EEEE/LA	Required to support a fire area boundary evaluation.
Water Suppression	2A-59 [2345]	Risk Criteria	Required to meet risk criteria.
Water Suppression	2A-59 [2345]	DID Criteria	Required to meet DID criteria.
Passive	One Hour Rated Cable	Risk Criteria	Required to meet risk criteria.
Passive	Restricted transient controls	DID Criteria	Required to meet DID criteria.
Passive	Restricted transient controls	EEEE/LA	Required to support a fire area boundary evaluation.
Modifications		Risk Criteria	Modification to provide fuse or other electrical isolation device at the DC shunt connection point.

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	Fire Risk Evaluation
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Title	FRE for Fire Area 2-042-U2	
Summary	A risk-informed, performance-based fire risk evaluation was performed for the fire area to address the variances from the deterministic requirements (VFDRs) of NFPA 805 Section 4.2.3. The acceptability of these VFDRs is based on the measured change in CDF and LERF and the maintenance of defense in depth and safety margins. The fire risk evaluation determined that with the implementation of fire rated cable, modification to provide fuse or other electrical isolation device at the DC shunt connection point, enhanced transient restrictions and the installed detection/suppression systems, the applicable risk, defense-in-depth, and safety margin criteria were satisfied.	
Δ CDF	5.36E-08	
Δ LERF	5.04E-10	
DID Maintained	The VFDRs and the associated Fire Area risk (CDF) and scenario consequences (CCDP values) were evaluated to identify general DID echelon imbalances. Potential methods to balance the DID features were identified ensuring an adequate balance of DID features is maintained for the Fire Area. As a result of the FRE for this area, enhanced transient restriction procedure and the installed detection and suppression systems were identified as required for DID.	
Safety Margin Maintained	All analyses and assessment have been performed utilizing accepted techniques and industry accepted standards. In addition, safety analysis acceptance criteria in the licensing basis (e.g., FSAR, supporting analyses) have been considered and provides sufficient margin to account for analysis and data uncertainty. As such, the Safety Margins are maintained.	
Comments		

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-042-SEP-001	
VFDR	N2B31L0001E:ON:OFF, PRESSURIZER HEATER GROUP 2E DISTRIBUTION PANEL - N2B31L0001E - Pressurizer Heater Group 2E Distribution Panel. The Heater is normally in standby, required off to prevent RCS pressure transients. Fire induced cable damage can prevent ability to trip heater, and a challenge to the RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-002	
VFDR	N2B31LI0461:AVAILABLE:AVAILABLE, PRESSURIZER LEVEL INDICATOR LI-461 (PROTECTION CHANNEL III) - N2B31LI0460 - Pressurizer Level Indicator LI-460. The indicator is normally available, required available at least one indicator from pressurizer level is required to provide process monitoring of RCS level. Fire induced cable result in failure to monitor the RCS level, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-005	
VFDR	N2B31PI0457:AVAILABLE:AVAILABLE, PRESSURIZER PRESSURE INDICATOR PI-457 (PROTECTION CHANNEL III) - N2B31PI0457 - Pressurizer Pressure Indicator PI-457. The indicator is normally available, required available for pressurizer pressure monitoring. Fire induced cable damage prevents the ability to monitor the pressure, and a challenge to the performance monitoring of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-008	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2C22LI0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 1C NARROW RANGE LEVEL INDICATOR LI-496 (PROTECTION CHANNEL III) - N2C22LI0496 - Steam Generator 1C Narrow Range Level Indicator . The indicator is normally available, required available at least one indicator from credited steam generator is required to provide process monitoring of steam generator level. Fire induced cable result in failure to monitor the steam generator level, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-009	
VFDR	N2N11PI0475:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - N2N11PI0475 - Steam Generator 2A Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-010	
VFDR	N2N11PI0476:AVAILABLE:AVAILABLE, STEAM GENERATOR 2A DISCHARGE PRESSURE - N2N11PI0476 - Steam Generator 2A Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-011	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N11PI0485:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - N2N11PI0485 - Steam Generator 2B Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-012	
VFDR	N2N11PI0486:AVAILABLE:AVAILABLE, STEAM GENERATOR 2B DISCHARGE PRESSURE - N2N11PI0486 - Steam Generator 2B Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-013	
VFDR	N2N11PI0495:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C DISCHARGE PRESSURE - N2N11PI0495 - Steam Generator 2C Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-014	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	N2N11PI0496:AVAILABLE:AVAILABLE, STEAM GENERATOR 2C DISCHARGE PRESSURE - N2N11PI0496 - Steam Generator 2C Discharge Pressure. The indicator is normally available, required available at least one indicator steam generator pressure is required to provide process monitoring of steam generator pressure. Fire induced cable damage results in failure to monitor the steam generator pressure, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-016	
VFDR	Q2E16H0001C:STANDBY:ON, CHARGING/HHSI PUMP ROOM COOLER 2C - Q2E16H0001C - Charging/HHSI Pump Room Cooler 2C. The cooler is normally in standby, required on to support charging pump. Fire induced cable damage can disable the cooler, and a challenge to RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-017	
VFDR	Q2E16H0005B:STANDBY:ON, 2B AFW PUMP ROOM COOLER - Q2E16H0005B - 2A AFW Pump Room Cooler. The cooler is normally in standby, required on to support AFW pump. Fire induced cable damage may prevent equipment from functioning properly due inadequate environmental concerns, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-018	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2E21P0002B:ON:ON/OFF-TRAIN B, 2B CHARGING PUMP - Q2E21P0002B - 2B Charging Pump. The pump is normally in Standby, required off to prevent overcharging. Fire induced cable damage can spurious operate pump, and a challenge to RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-019	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002C - 2C Charging Pump. The pump is normally in Standby, required on to provide makeup capability. Fire induced cable damage can disable pump, and a challenge to RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-020	
VFDR	Q2E21P0002C:ON:ON/OFF, 2C CHARGING PUMP - Q2E21P0002C - 2C Charging Pump. The pump is normally in Standby, required on to provide makeup capability. Fire induced cable damage can disable pump, and a challenge to RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-021	
VFDR	N2F16LI4075B:AVAILABLE:AVAILABLE, RWST LEVEL INDICATOR LI-4075B - Q2F16LT0502 - RWST Level Indicator LI-4075B. The indicator is normally available, required available for RWST level. Fire induced cable damage result in failure to monitor the RWST level, and a challenge to the process monitoring capability of RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-022	
VFDR	Q2N11PV3371A:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q2N11PV3371A- Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-023	
VFDR	Q2N11PV3371B:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q2N11PV3371B- Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-024	
VFDR	Q2N11PV3371C:CLOSED:CLOSED, MAIN STEAM ATMOS RELIEF - Q2N11PV3371C- Main Steam Atmos Relief. The valve is normally closed, required closed to control steam generator pressure. Fire induced cable damage can spuriously open valve and prevent the ability to control steam generator pressure, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-042-SEP-025	1
VFDR	Q2N12HV3234B:OPEN:OPEN/CLOSED, TDAFWP STEAM SUPPLY WARM-UP ISOLATION - Q2N12HV3234A - TDAFP Steam Supply Warm-up Isolation. The valve is normally open, required closed to prevent uncontrolled steam loss. Fire induced cable damage may fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-026	
VFDR	Q2N21V0001A:OPEN:CLOSED, A STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232A - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-027	
VFDR	Q2N21V0001B:OPEN:CLOSED, B STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232B - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-042-SEP-028	
VFDR	Q2N21V0001C:OPEN:CLOSED, C STEAM GENERATOR MAIN FEED STOP CHECK VALVE MOV3232C - N2N21P0001A - Condensate Pump 2A; N2N21P0001B - Condensate Pump 2B; N2N21P0001C - Condensate Pump 2C; Q2N21V0001A - A Steam Generator Main Feed Stop Check Valve MOV3232A, Q2N21V0001B - B Steam Generator Main Feed Stop Check Valve MOV3232B, Q2N21V0001C - C Steam Generator Main Feed Stop Check Valve MOV3232C. The pumps are normally on required off, the valve is normally open, required closed to prevent steam generator overfill. Fire induced cable damage can fail pumps on and fail valve open, and a challenge to the Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-029	
VFDR	Q2P16FV3009A:OPEN:OPEN, SW FROM 2A CCW HX - Q2P16FV3009 - SW from 2A CCW Hx. The valve is normally open required open. Fire induced cable damage can close the valve and disable CCW system support, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-030	
VFDR	Q2P17P0001A:STANDBY:ON, 2A COMPONENT COOLING WATER PUMP - Q2P17P0001A - 2A Component Cooling Water Pump. The pump is normally in Standby, required on to provide cooling water support to charging pumps. Fire induced cable damage can disable pump, and a challenge to RCS Inventory and Pressure Control Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-031	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R15A0007:ENERGIZED:ENERGIZED-EDG2B, 4160V SWITCHGEAR BUS 2G - Q2R15A0007 - 4160V Switchgear Bus 2G. The switchgear is normally energized required energized. Fire induced cable damage on breaker control circuit can prevent power to bus may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-032	
VFDR	Q2R15A0506:ENERGIZED:ENERGIZED, 4160V SWITCHGEAR BUS 2L - Q2R15A0506 - 4160V Switchgear Bus 2L. The bus is normally energized, required energized to support service water to pond. The loss of bus can disable service water support for diesel generator, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-033	
VFDR	Q2R11B0005:ENERGIZED:ENERGIZED, STATION SERVICE TRANSFORMER 2E - Q2R16B0007 - 600V Load Center 2E and Q2R11B0005 - Station Service Transformer. The load center is normally energized required energized. Fire induced cable damage to load power cable can prevent power to bus may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-034	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR	Q2R16B0007:ENERGIZED:ENERGIZED, 600V LOAD CENTER 2E - Q2R16B0007 - 600V Load Center 2E and Q2R11B0005 - Station Service Transformer. The load center is normally energized required energized. Fire induced cable damage to load power cable can prevent power to bus may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-035	
VFDR	Q2R42E0001B:ENERGIZED:ENERGIZED, BATTERY CHARGER 2B - Q2R42E0001B - Battery Charger 2B. The charger is normally energized, required energized to support dc control power. Fire induced cable may disable electrical support, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-036	
VFDR	Q2R42E0002B:AVAILABLE:AVAILABLE, 125V BATTERY 2B - Q2R42B0002B - 125V Battery 2B. The battery is normally available required available. Fire induced cable damage can disable the dc power required for diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-037	
VFDR	Q2R43A0505:STANDBY:ENERGIZED, 2B DIESEL GENERATOR - Q2R43A0505- 2B Diesel Generator. The diesel is normally in standby required running. Fire induced cable damage can prevent power from diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	

Attachment C

Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-038	
VFDR	Q2R43E0001B:AVAILABLE:AVAILABLE-SEQ/SHED, SEQUENCER BUS 2G - Q2R43E0001B - Sequencer Bus 2G. The sequencer is normally available required available. Fire induced cable damage can disable the sequencer required for diesel generator and may place plant in an unrecoverable condition, and a challenge to all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-039	
VFDR	Q2V47MOV3643:OPEN:OPEN, 2A BATTERY ROOM EXHAUST DAMPER - Q2V47MOV3643 - 2A Battery Room Exhaust Damper. The damper is normally open, required open to support battery room ventilation. Fire induced cable damage may disable electrical support, and a challenge to the all Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-042-SEP-040	
VFDR	N2B21TR0410:AVAILABLE-TE410:AVAILABLE-TE410, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	

Attachment C
Table C-1 NFPA 805 Ch 4 Compliance (NEI 04-02 Table B-3)

Fire Area ID:	2-042-U2 - Aux Building Hallways & Corridor	VFDRs
Compliance Basis:	NFPA 805, Section 4.2.4.2 Performance-Based Approach - Fire Risk Evaluation with simplifying deterministic assumptions	
VFDR ID	U2-2-042-SEP-041	
VFDR	N2B21TR0413:AVAILABLE-TE413:AVAILABLE-TE413, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE410) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE413) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component power supply may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action (VFDR not modeled in Fire PRA).	
VFDR ID	U2-2-042-SEP-042	
VFDR	N2B21TR0410:AVAILABLE-TE420:AVAILABLE-TE420, RCS COLD LEG TEMPERATURE RECORDER TR-410 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component power supply may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	
Disposition	This condition was evaluated for compliance using the performance-based approach of NFPA 805, Section 4.2.4. A fire risk evaluation determined that applicable risk, defense-in-depth, and safety margin criteria were satisfied without further action.	
VFDR ID	U2-2-042-SEP-043	
VFDR	N2B21TR0413:AVAILABLE-TE433:AVAILABLE-TE433, RCS HOT LEG TEMPERATURE RECORDER TR-413 - N2B21TR0410 (TE420) - RCS Cold Leg Temperature Recorder TR-410; N2B21TR0413 (TE423) - RCS Hot Leg Temperature Indicator TI-413. These RCS Loop 2 indicators are normally available, only one set of the indicators from credited Steam Generator RCS Loop is required available to provide process monitoring of Decay Heat Removal Nuclear Performance Criteria. Fire induced cable damage to component power supply may result in failure to monitor the decay heat removal, and a challenge to the process monitoring capability of Decay Heat Removal Nuclear Safety Performance Criteria. This condition represents a variance from the deterministic requirements of Section 4.2.3 of NFPA 805. This is a Separation Issue. Evaluate for compliance using the performance-based approach of NFPA 805, Section 4.2.4.	