



June 6, 2014  
10 CFR 50.90  
L-2014-154

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

Re: Turkey Point Nuclear Generating Station Units 3 and 4  
Docket Nos. 50-250 and 50-251  
Response to Request for Additional Information Regarding License Amendment  
Request No. 216 - Transition to 10 CFR 50.48(c) - NFPA 805 Performance-Based  
Standard for Fire Protection for Light Water Reactor Generating Plants (2001 Edition)

By Florida Power and Light Company (FPL) letter L-2012-092 dated June 28, 2012, in accordance with the provisions of 10 CFR 50.90, "Application of License or Construction Permit," FPL requested an amendment to the Renewed Facility Operating License (RFOL) for Turkey Point Nuclear Generating Station Units 3 and 4. The License Amendment Request (LAR) will enable FPL to adopt a new fire protection licensing basis which complies with the requirements in 10 CFR 50.48(a) and (c) and the guidance in Revision 1 of Regulatory Guide (RG) 1.205.

On May 27, 2014, the NRC Staff requested additional information regarding the LAR. The attachment to this letter provides the response to the request for additional information (RAI). The additional information does not impact the 10 CFR 50.92 evaluation of "No Significant Hazards Consideration" previously provided in FPL letter L-2012-092.

This letter does not change any previous commitments nor add any new commitments.

If you should have any questions regarding this application, please contact Robert Tomonto, Licensing Manager, at 305-246-7327.

I declare under penalty of perjury that the foregoing is true and correct.  
Executed on June 6, 2014.

A handwritten signature in black ink, appearing to read 'Michael Kiley', is written over a horizontal line.

Michael Kiley  
Vice President  
Turkey Point Nuclear Generating Station

Attachment

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, Turkey Point  
USNRC Project Manager for Turkey Point  
Ms. Cindy Becker, Florida Department of Health

A006  
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**L-2014-154 Attachment**

**Response to Request for Additional Information Regarding License Amendment  
Request No. 216**

**Florida Power and Light Company  
Turkey Point Nuclear Generating Station Units 3 and 4  
Transition to 10 CFR 50.48(c) – NFPA 805  
Performance-Based Standard for Fire Protection for  
Light Water Reactor Electric Generating Plants, 2001 Edition**

## PTN RAI FPE 16

The staff identified a number of inconsistencies related to Turkey Point's license amendment request (LAR) (ADAMS Accession No. ML12191A048) Attachment L, approval request 7, during the finalization of the safety evaluation, related to the Unit 3 emergency diesel generator (EDG) day tanks. The licensee quoted National Fire Protection Association (NFPA) 30, "Flammable and Combustible Liquids Code," (1976 Edition) section 2-4.4.3 as follows:

Tanks for storage of Class I or Class II liquids inside of buildings shall be provided with either:

- (a) a normally closed remotely activated valve;
- (b) an automatic-closing heat-activated valve; or
- (c) another approved device on each liquid transfer connection below the liquid level, except for connections used for emergency disposal, to provide for quick cut-off in the event of a fire in the vicinity of the tank.

This function can be incorporated in the valve required in 2-4.4.2, and if a separate valve, shall be located adjacent to the valve required in 2-4.4.2.

The licensee's description of the condition requiring approval is:

NFPA 30 states that tanks inside buildings with Class II or IIIA liquids shall have a valve capable of quick cut-off in the event of a fire in the vicinity of the tank. The Unit 3 [EDG] day tanks do not have valves that meet the criteria of this section. Each Unit 3 EDG day tank is located in a small dedicated room in the Unit 3 EDG building, above their respective EDG. Each room is segregated by three hour rated fire barriers, a pre-action suppression system, and containment in the event of a tank leak. Each day tank is equipped with two drain lines which each have a normally closed shutoff valve. The other line below the liquid level is the discharge line to the engine driven fuel pump. The discharge line to the fuel pump is equipped with a normally opened ball valve outside of the day tank room.

The basis for the approval request of this deviation is:

- The tanks are located in small individual and dedicated segregated rooms with automatic fire suppression, rated barriers, and limited combustibles.

The staff has identified the following inconsistencies:

1. There appears to be a discrepancy regarding the description of the plant configuration versus the requirement ("Class I or Class II" versus "Class II or IIIA").
2. It is not clear whether all of the connections to the tank have been identified.

3. The non-conforming condition is not clearly identified; nor is there a connection made between this condition and the provided basis for approval.
4. The concluding discussion for the approval request (where nuclear safety capability assessment, radiation release, defense-in-depth, and safety margins are addressed) does not include details of the EDG day tanks, while discussing the diesel driven fire pump in detail.
5. The fire protection systems and features described in the basis for approval are not listed as required for this approval in the LAR Attachment C, C-2 Table.
6. The NFPA 30 Code Compliance Evaluation, referenced in the LAR Attachment A, Table B-1 identifies, for NFPA 30 Section 2-4.4.3, that the Unit 4, 4A and 4B EDG fuel oil tanks do not have a valve meeting the requirements of this section of the code, whereas the Approval Request #7 indicates that the Unit 3 EDG day tanks do not have the appropriate valves.
7. The justification in the Code Compliance Evaluation indicates that adding such a valve would introduce another potential failure mode that could result in loss of fuel supply to support EDG extended operation, but this was not addressed in the Approval Request #7.

To resolve these inconsistencies:

- a) Identify to which tanks Approval Request #7 applies. Provide the information requested below for each tank identified.
- b) Provide a clearer description of the tanks and lines with regard to the requirement.
- c) Provide a clear description of the non-compliance being analyzed.
- d) Provide a clearer connection between the requirement that is not being met, the plant configuration and installed fire protection systems and features, and the resulting acceptability of the current arrangement, including fire response procedures, if applicable.
- e) Revise the conclusion of Approval Request #7 to address the identified tanks, not just the diesel driven fire pump.
- f) Provide a revised C-2 table that shows that the fire protection systems and features relied on for the acceptability of this approval request are required fire protection systems or features. Perform an extent of condition review to ensure that all other systems or features similarly relied on for acceptability are properly identified in the C-2 table as required.



**RESPONSE:**

General Information Relevant to this RAI Response

- This RAI response pertains to the discussion of the tanks associated with the non-compliance with NFPA 30 Section 2-4.4.3.
- NFPA 30 Section 2-4.4.3 and the rest of Section 2-4, *Installation of Tanks Inside Buildings*, does not apply to the Diesel Driven Fire Pump (DDFP) fuel oil storage tank since the DDFP tank is an outside aboveground tank.
- The original Approval Request #7 inadvertently referred to the Unit 3 Emergency Diesel Generator (EDG) Fuel Oil Day Tanks. The approval request should have referred to the Unit 4 EDG Fuel Oil Storage Tanks.
- The (Unit 4) 4A and 4B EDG Fuel Oil Storage Tanks are different tanks from the 4A and 4B EDG Fuel Oil Day Tanks. The 4A and 4B EDG Fuel Oil Storage Tanks are two 42,000 gallons rectangular concrete tanks with steel inner liners, built as part of the 4A/4B Diesel Generator Building structure, and separated from the rest of the building by 3-hour fire rated concrete construction. The 4A and 4B Fuel Oil Day Tanks are two 650-gallons cylindrical tanks installed inside the 4A and 4B EDG Rooms themselves. In accordance with NFPA 30, 1976 Edition Section 1-1.8, and NFPA 37, 1975 Edition Section 52, the 4A and 4B EDG Day Tanks were not included in the scope of the NFPA 30 code compliance evaluation.
- A revised LAR Attachment L, Approval Request #7 is enclosed with this RAI response.

Responses are provided below for the specific questions and requests included in RAI FPE 16.

a) Approval Request #7 applies to the following tanks:

1. NFPA 30 Section 2-2.1.1 applies to DDFP Fuel Oil Storage Tank
2. NFPA 30 Section 2-2.4.2 applies to DDFP Fuel Oil Storage Tank
3. NFPA 30 Section 2-4.4.3 applies to 4A and 4B EDG Fuel Oil Storage Tanks.
4. NFPA 30 Section 2-5.2 applies to DDFP Fuel Oil Storage Tank

This RAI response is for questions regarding the approval request for NFPA 30 Section 2-4.4.3 and, therefore, the 4A and 4B EDG Fuel Oil Storage Tanks.

b) The 4A and 4B EDG Fuel Oil Storage Tanks are constructed the same and have the same line connections as listed below:

1. Each tank is a concrete tank with steel inner liner built as part of the 4A/4B Diesel Generator Building structure, and separated from the rest of the building by 3-hour fire rated construction. These tanks are accessible only through a removable concrete hatch on the roof. In the vernacular of the 1976 Edition of NFPA 30, this is considered a tank inside a building. The liquid transfer connections below the liquid level are described below.

2. There is a 4-inch cross-connect line between the two Unit 4 EDG Fuel Oil Storage Tanks. There are two normally closed gate valves in the cross-connect line. This arrangement is compliant with NFPA 30 Section 2-4.4.3.
  3. There is a 3-inch transfer line from each Unit 4 EDG Fuel Oil Storage Tank to its associated Fuel Oil Day Tank (i.e. 4A or 4B). This fuel transfer line includes a strainer, a check valve, four normally-open manual gate valves, and one normally-open solenoid operated valve. The solenoid operated valve is signaled to close via liquid level sensors on the associated Fuel Oil Day Tank. The valves are located in the adjacent associated Diesel Fuel Transfer Pump Room (4A or 4B) and in the associated EDG Room (4A or 4B).
- c) The non-compliance being analyzed is the lack of a valve in accordance with NFPA 30 Section 2-4.4.3 in the fuel oil transfer lines between the 4A and 4B EDG Fuel Oil Storage Tanks and the associated day tank. None of the valves provided in the 4A and 4B storage tank discharge lines to the day tanks comply with either of the three options listed in NFPA 30 Section 2-4.4.3. In particular the solenoid operated valve is normally-open rather than normally-closed.
- d) As stated in NFPA 30 Section 2-4.4.3, the purpose of the required valve is to enable quick cut-off of fuel flow in the event of fire in the vicinity of the tank. This concern is readily seen in a scenario in which a steel tank is exposed within a larger space, such that a "fire in the vicinity of the tank" could expose the tank to over-heating and subsequent rupture, leading to fire spread to adjacent targets and areas. The 4A/4B EDG Building is constructed such that each of the potentially affected areas are separated from each other by 3-hour fire rated concrete barriers. The 4A and 4B Fuel Oil Storage Tanks are integral concrete tanks; their exterior surfaces are in fact the other side of the concrete barrier in the adjacent rooms. For example, a fire "in the vicinity" of the 4B Fuel Oil Storage Tank is actually a fire located in either the 4A EDG Room, or the 4B Diesel Fuel Transfer Pump Room, or outside the 4A/4B EDG Building. The 4B Fuel Oil Storage Tank itself is not directly exposed. There are manual gate valves in both the Transfer Pump Room and the EDG Room. A fire in one room will not impede the ability to access and close a manual gate valve in the other room, since they are separated by 3-hour fire barriers and have independent ingress paths. In addition, the 4A and 4B Transfer Pump Rooms and the 4A and 4B EDG Rooms are all provided with automatic sprinkler systems (wet pipe or preaction) and automatic fire detection. Actuation of the fire detection system will be annunciated in the Control Room, and in accordance with the plant's fire alarm response procedure, an operator will be dispatched to investigate the alarm. The addition of another valve in order to meet the exact language of the code requirement would not materially increase the level of safety. Conversely, adding another valve in the line (e.g. a normally closed remotely activated valve) theoretically introduces a potential failure point (i.e. unable to open the valve when needed) that could result in loss of fuel supply to support EDG extended operation.
- e) See attached revision to Approval Request #7.
- f) As shown in the enclosed markup of Table C-2 (affected pages only), the fire detection systems in the 4A/4B EDG Rooms and the 4A/4B EDG Transfer Pump Rooms have been added to the required systems and features summary for the affected fire zones (133, 136, 138 and 141) for EEEE/LA. An extent of condition review was conducted to

ensure that all other fire protection systems and features relied upon for acceptability of the PTN NFPA 805 LAR are properly identified in Table C-2. A line by line review was conducted of Table C-2 in comparison with the Fire Risk Evaluations (FRE), B-3 Table, Non-Power Operational Mode (NPO) Review, Radioactive Release Review, Licensing Action Transition Review, EEEE Review, B-1 Table and LAR Attachment L. The following additional issues were identified:

1. The June 2012 FRE Update Attachment page A7 of 16 indicated that the "...flame detection for the B ICW Pump will be required in this area for defense in depth." This commitment needs to be added to Table C-2 for Fire Zones 119 and 120 in Fire Area OD-Intake (Unit 3). The information was properly captured in the B-3 Table.
2. The June 2012 FRE Update Attachment page A14 of 16 indicated that for Fire Zone 133 / Fire Area SS in Unit 4, the "...detection and suppression systems will be required in this area for defense in depth." The information was properly captured in the B-3 Table. However in the Table C-2, the suppression system was not marked as required for defense in depth.
3. The B-1 Table, Section 3.3.5.3 credits the use of a fire retardant cable coating for cables in trays with safe shutdown related cables as the basis for a prior approval in the 3/21/1979 SER, which granted the requests presented in FPL letter L-78-236. The spaces listed below were noted in the B-1 Table as crediting the fire retardant cable coating, but they were not noted as such in Table C-2. The enclosed markup of Table C-2 adds a EEEE/LA requirement for fire retardant cable coating in these zones:
  - i. Inverter Room (Fire Zones 108A and 108B)
  - ii. Units 3 and 4 Containment (Fire Zones 60 and 59)
  - iii. Lower Level of Turbine Area (Fire Zones 79 and 88)
  - iv. Auxiliary Feedwater Pump Area (Fire Zone 84)
  - v. In the vicinity of the Condensate Storage Tank and Transfer Pumps (Fire Zones 77 and 89)

## Approval Request 7

### NFPA 805 Section 3.3.8 and NFPA 30 Sections 2-2.1.1, 2-2.4.2, 2-4.4.3, & 2-5.2

NFPA 805 Section 3.3.8 states:

*"Bulk storage of flammable and combustible liquids shall not be permitted inside structures containing systems, equipment, or components important to nuclear safety. As a minimum, storage and use shall comply with NFPA 30, Flammable and Combustible Liquids Code."*

NFPA 30 (1976 Edition) Section 2-2.1.1 states:

*"Every aboveground tank for the storage of Class I, Class II or Class IIIA liquids, except as provided in 2-2.1.2 and those liquids with boil-over characteristics and unstable liquids, operating at pressures not in excess of 2.5 psig and designed with a weak roof-to-shell seam or equipped with emergency venting devices which will not permit pressures to exceed 2.5 psig, shall be located in accordance with Table 2-1." [See code for tank type definition and table]*

NFPA 30 (1976 Edition) Section 2-2.4.2 states:

*"Normal vents shall be sized either in accordance with: (1) the American Petroleum Institute Standard No. 2000, Venting Atmospheric and Low-Pressure Storage Tanks, 1973; or (2) other accepted standard; or (3) shall be at least as large as the filling or withdrawal connection, whichever is larger but in no case less than 1¼ inch nominal inside diameter."*

NFPA 30 (1976 Edition) Section 2-4.4.3 states:

*"Tanks for storage of Class I or Class II liquids inside of buildings shall be provided with either:*

- (a) a normally closed remotely activated valve,*
- (b) an automatic-closing heat-activated valve, or*
- (c) another approved device on each liquid transfer connection below the liquid level, except for connections used for emergency disposal, to provide for quick cut-off in the event of a fire in the vicinity of the tank*

*This function can be incorporated in the valve required in 2-4.4.2, and if a separate valve, shall be located adjacent to the valve required in 2-4.4.2."*

NFPA 30 (1976 Edition) Section 2-5.2 states:

*"When tanks are supported above the foundations, tank supports shall be installed on firm foundations. Supports for tanks storing Class I, Class II, or Class IIIA liquids shall be of concrete, masonry or protected steel. Single wood timber supports (not*



*cribbing) laid horizontally may be used for outside above-ground tanks if not more than 12 inches high at their lowest point.”*

The NFPA 30 code compliance evaluation identified some non-conformances. The following discussion includes those sections which PTN is requesting NRC approval of the deviation.

NFPA 30 Section 2-2.1.1:

NFPA 30 states that tanks shall be a specific distance from the nearest building. In this case, the distance is five feet. The diesel driven fire pump (DDFP) fuel oil storage tank is located approximately two feet from the DDFP building. The fuel oil storage tank is located within a containment area capable of containing the entire contents of the tank. Loss of the fuel oil storage tank would prohibit the use of the DDFP. The electric fire pump would be operational since the pumps are located approximately 50 feet apart, controllers are separated by more than 20 feet, and therefore would not be affected by the loss of the DDFP. Each pump individually is capable of providing the required water capacity. This area is a significant distance from the nearest power block structure, the Intake Structure.

The basis for the approval request of this deviation is:

The only structure within five feet of the nearest building is the DDFP building.

The fuel tank is dedicated to serve the DDFP.

Loss of the DDFP fuel oil storage tank would result in loss of the DDFP, therefore location of the DDFP fuel oil storage tank adjacent to the DDFP building is not relevant.

The electric fire pump has the capacity to provide the required fire water supply in the event of loss of the DDFP.

NFPA 30 Section 2-2.4.2:

NFPA 30 states that the vent line should be equal to or greater than the largest filling or withdrawal connection, or sized per accepted standards. The DDFP fuel oil storage tank is equipped with a 1-1/2" vent line and a 2" fill line. The tank was purchased and installed with the DDFP but there is no record of a sizing calculation. The DDFP fuel oil storage tank has a capacity of approximately 500 gallons. The tank is typically filled using the local fill connection small transfer pump and portable tank; the 2" direct fill line is not frequently used. The rate at which the tank is filled, provided the small capacity, will not result in rupture of the tank. Filling operations require personnel be present at the tank, who stop the re-filling operation as necessary thereby preventing overflow or damage to the tank.

The basis for the approval request of this deviation is:

The DDFP tank is a small volume tank that is refilled in accordance with station procedures which would not result in damage to the tank.



The electric fire pump has the capacity to provide the required fire water supply in the event of loss of the DDFP.

NFPA 30 Section 2-4.4.3:

NFPA 30 states that tanks inside buildings with Class I or II liquids shall have a valve capable of quick cut-off in the event of a fire in the vicinity of the tank. The 4A and 4B EDG Fuel Oil Storage Tanks are equipped with a cross-connect transfer line between the two storage tanks, which is provided with two normally closed shutoff valves. This arrangement complies with the NFPA 30 requirement. The other transfer connection below the liquid level is the discharge line from each Fuel Oil Storage Tank to the associated 4A or 4B EDG Fuel Oil Day Tank, located inside the associated EDG Room. This discharge line is equipped with one normally-open solenoid operated valve and multiple normally-open manually operated gate valves located in both the Transfer Pump Room and the EDG Room. This combination of valves does not meet the requirements of NFPA 30 Section 2-4.4.3 as they are all normally-open (the solenoid operated valve is closed by a liquid level sensor on the Day Tank) and there are none that are heat-activated to close.

The 4A and 4B EDG Fuel Oil Storage Tanks are concrete tanks with steel inner liners, constructed integral to the Unit 4 EDG Building and accessible only through a removable concrete hatch on the roof. Each of the rooms potentially affected by this code requirement (the 4A and 4B EDG Rooms, the 4A and 4B Fuel Transfer Pump Rooms and the 4A and 4B Fuel Oil Storage Tanks) are segregated from adjacent spaces by three-hour fire rated concrete barriers. In addition, the EDG Rooms and Fuel Transfer Pump Rooms are provided with automatic sprinkler systems (preaction or wet pipe) and fire detection systems that annunciate in the Control Room. Upon receipt of a fire detection alarm in the control room the plant's fire alarm response procedure requires that an operator be dispatched to investigate the cause of the alarm. The addition of another valve in order to meet the exact language of the code requirement would not materially increase the level of safety given the existing building design, system configuration, and protection features. Conversely adding another valve in the line theoretically introduces a potential failure point (e.g. unable to open the valve when needed) that could result in loss of fuel supply to support EDG extended operation.

The basis for the approval request of this deviation is:

The 4A and 4B EDG Fuel Oil Storage Tanks are steel lined concrete tanks, and they and the potentially affected adjacent spaces in the Unit 4 EDG Building are separated from each other by three-hour fire rated concrete barriers. A fire in one room is not expected to impact the other Unit 4 EDG Building rooms and therefore at least one of the two EDG trains will remain available.

At least one of the existing manual shut off valves is expected to be available in the event of a fire since manual shut off valves are located in both the Transfer Pump Room and the EDG Room and these rooms have independent ingress paths.



The fire detection systems in the 4A/4B EDG Rooms and the 4A/4B EDG Fuel Transfer Rooms annunciate in the Control Room. Upon receipt of an alarm, an operator is dispatched to investigate the cause of the alarm.

NFPA 30 Section 2.5.2:

NFPA 30 states that when tanks are supported above the foundation the supports shall be of concrete, masonry or protected steel. The DDFP fuel oil storage tank is supported by unprotected steel legs. The fuel oil storage tank is located within a containment area capable of containing the entire contents of the tank. Fireproofing on the supports could prevent an exposure fire from causing structural failure of the supports and the fuel from the tank adding to the fire. The only exposure to the tank supports is from the tank itself, thereby additional protection would not be of benefit. Loss of the fuel oil storage tank would prohibit the use of the DDFP. The electric fire pump would be operational since the pumps are located approximately 50 feet apart, controllers are separated by more than 20 feet, and each pump individually is capable of providing the required water capacity.

The basis for the approval request of this deviation is:

The DDFP fuel oil storage tank is located within a containment area.

There are no exposures to the tank other than itself, therefore additional protection would not assure survival of the tank.

The electric fire pump has the capacity to provide the required fire water supply in the event of loss of the DDFP.

**Nuclear Safety and Radiological Release Performance Criteria:**

The deviations from NFPA 30 regarding flammable and combustible liquid storage tanks do not affect nuclear safety as:

The DDFP is not relied upon for nuclear safety functions. The electric fire pump, in the event of loss of the DDFP, has the ability to supply the required fire water and is not relied upon for other water requirements.

At least one Unit 4 EDG train will remain available due to the existing construction (i.e. three hour fire barriers), protection features (i.e. fire detection), and system configuration (i.e. shut-off valves located in multiple separated rooms).

Therefore there is no impact on the nuclear safety performance criteria.

The deviations from NFPA 30 regarding flammable and combustible liquid storage tanks have no impact on the radiological release performance criteria. The radiological release review was performed based on the manual fire suppression activities in areas containing or potentially containing radioactive materials and is not dependent on the location of the fire pumps or the provision of a certain type of fuel shut-off valve in the EDG fuel oil systems. The deviations from NFPA 30 do not change the radiological release evaluation results that concluded that potentially contaminated water is



contained and smoke is monitored. The deviations do not add additional radiological materials to the area or challenge systems boundaries.

**Safety Margin and Defense-in-Depth:**

The deviations from NFPA 30 regarding flammable and combustible liquid storage tanks do not negate either the ability to supply diesel fuel to at least one EDG train for extended operations, or the ability to supply the required fire water in a fire event. The nuclear safety analysis does not credit both of the fire pumps simultaneously. The use of these systems has been defined by the limitations of the analysis of the fire event. Therefore, the inherent safety margin and conservatisms in these analysis methods remain unchanged.

The three echelons of defense-in-depth are 1) to prevent fires from starting (combustible/hot work controls), 2) rapidly detect, control and extinguish fires that do occur thereby limiting damage (fire detection systems, automatic fire suppression, manual fire suppression, pre-fire plans), and 3) provide adequate level of fire protection for systems and structures so that a fire will not prevent essential safety functions from being performed (fire barriers, fire rated cable, success path remains free of fire damage, recovery actions). Echelon 3 is maintained by availability of the unaffected Unit 4 EDG train and the electric fire pump which has the capacity to provide the required fire water supply in the event of loss of the DDFP. The deviations from NFPA 30 do not affect echelons 1 and 2. The deviations do not result in compromising automatic fire suppression functions, manual fire suppression functions, or post-fire safe shutdown capability.

**Conclusion:**

NRC approval is requested for the deviations to NFPA 30 regarding configurations described above.

The engineering analysis performed determined that the performance-based approach utilized to evaluate a variance from the requirements of NFPA 805 Chapter 3:

- (A) Satisfies the performance goals, performance objectives, and performance criteria specified in NFPA 805 related to nuclear safety and radiological release;
- (B) Maintains safety margins; and
- (C) Maintains fire protection defense-in-depth (fire prevention, fire detection, fire suppression, mitigation, and post-fire safe shutdown capability).



### Attachment C

**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** NN (Unit 3) - Units 3 and 4 A DC Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All) 108A	Area Wide Units 3 and 4 A DC Equipment Room - Fire Area NN	None R, S, N, <input checked="" type="checkbox"/>	None R, D, S, N, A	R R, S, N, E	Procedures/Recovery Actions: R Detection System, Alarm Point 15: R D S N A ERFBS, 108A-1: R S N ERFBS, 108A-2: R S N ERFBS, 108A-3: R S N ERFBS, 108A-4: R S N Gaseous Suppression, CV-1452 CV-1453: R S N <input checked="" type="checkbox"/> <b>Fire Retardant Cable Coating: E</b>

Revised by RAI Response Letter L-2014-071

**Fire Area ID:** NN (Unit 4) - Units 3 and 4 A DC Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All) 108A	Area Wide Units 3 and 4 A DC Equipment Room - Fire Area NN	None R, S, N, <input checked="" type="checkbox"/>	None R, D, S, N, A	R R, S, N, E	Procedures/Recovery Actions: R Detection System, Alarm Point 15: R D S N A ERFBS, 108A-1: R S N ERFBS, 108A-2: R S N ERFBS, 108A-3: R S N ERFBS, 108A-4: R S N Gaseous Suppression, CV-1452 CV-1453: R S N <input checked="" type="checkbox"/> <b>Fire Retardant Cable Coating: E</b>

**Fire Area ID:** O (Unit 3) - Unit 3 and 4 Boric Acid Tanks and Pumps Rooms  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All) 041	Area Wide Units 3 and 4 Boric Acid Tanks and Pump Room - Fire Area O	None None	None None	R E	Procedures/Recovery Actions: R Physical separation: E
055	Unit 3 Charging Pump Room - Fire Area O	E, A	E, D, A	None	Detection System, Alarm Point 7: E D A Water Suppression, 3-10-841: E A

**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-077 (Unit 3) - Unit 4 Laydown Area, Instrument Air Compressors and Condensate Storage Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
077	Unit 4 Laydown Area, Instrument Air Compressors and Condensate Storage Area - Fire Area OD	None	None	<del>None</del> E	None Fire Retardant Cable Coating: E

**Fire Area ID:** OD-077 (Unit 4) - Unit 4 Laydown Area, Instrument Air Compressors and Condensate Storage Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
077	Unit 4 Laydown Area, Instrument Air Compressors and Condensate Storage Area - Fire Area OD	None	None	None	None

**Fire Area ID:** OD-078 (Unit 3) - Unit 4 Instrument Air Equipment Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
078	Unit 4 Instrument Air Equipment Area - Fire Area OD	D	D	D	Detection System, All available - OD-078: D Pre-fire Plan: D Water Suppression, 4-10-1302: D Water Suppression, 4-10-1590: D Water Suppression, 4-10-1601: D



**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-078 (Unit 4) - Unit 4 Instrument Air Equipment Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
078	Unit 4 Instrument Air Equipment Area - Fire Area OD	D	D	D	Detection System, All available - OD-078: D Pre-fire Plan: D Water Suppression, 4-10-1302: D Water Suppression, 4-10-1590: D Water Suppression, 4-10-1601: D

**Fire Area ID:** OD-079 (Unit 3) - Outdoor Area West of Unit 4 Containment  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
079	Outdoor Area West of Unit 4 Containment - Fire Area OD	None	None	E	Combustible Loading: E Curbs: E Extinguishers: E Physical separation: E

**Fire Area ID:** OD-079 (Unit 4) - Outdoor Area West of Unit 4 Containment  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R, D	Procedures/Recovery Actions: R D
079	Outdoor Area West of Unit 4 Containment - Fire Area OD	D	None	E, D	Combustible Control - Transient Restrictions: D Combustible Loading: E Curbs: E Extinguishers: E Physical separation: E Water Suppression, All available - OD-079: D <b>Fire Retardant Cable Coating: E</b>

**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-083 (Unit 3) - Unit 3 Instrument Air Equipment Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
083	Unit 3 Instrument Air Equipment Area - Fire Area OD	E, D	D	E	Combustible Loading: E Curbs: E Detection System, All available - OD-083: D Extinguishers: E Physical separation: E Water Suppression, 3-10-1302: E D Water Suppression, 3-10-1601: E D

**Fire Area ID:** OD-083 (Unit 4) - Unit 3 Instrument Air Equipment Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
083	Unit 3 Instrument Air Equipment Area - Fire Area OD	E, D	D	E	Combustible Loading: E Curbs: E Detection System, All available - OD-083: D Extinguishers: E Physical separation: E Water Suppression, 3-10-1302: E D Water Suppression, 3-10-1601: E D

**Fire Area ID:** OD-084 (Unit 3) - Units 3 and 4 Auxiliary Feedwater Pump Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R, D	Procedures/Recovery Actions: R D
084	Units 3 and 4 Auxiliary Feedwater Pump Area - Fire Area OD	E, D	None	E	Combustible Loading: E Curbs: E Extinguishers: E Water Suppression, 3-10-1601: E D <b>Fire Retardant Cable Coating: E</b>



### Attachment C

**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-084 (Unit 4) - Units 3 and 4 Auxiliary Feedwater Pump Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R Combustible Loading: E Curbs: E Extinguishers: E Transient Combustible Restrictions: R Water Suppression, 3-10-1601: E D <b>Fire Retardant Cable Coating: E</b>
084	Units 3 and 4 Auxiliary Feedwater Pump Area - Fire Area OD	E, D	None	E, R	

**Fire Area ID:** OD-085 (Unit 3) - Unit 3 Main Condenser Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
085	Unit 3 Main Condenser Area - Fire Area OD	E	None	E	Combustible Loading: E Curbs: E Water Suppression, 3-10-1302: E Water Suppression, 3-10-1601: E

**Fire Area ID:** OD-085 (Unit 4) - Unit 3 Main Condenser Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
085	Unit 3 Main Condenser Area - Fire Area OD	E	None	E	Combustible Loading: E Curbs: E Water Suppression, 3-10-1302: E Water Suppression, 3-10-1601: E

**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-087 (Unit 4) - Unit 3 Auxiliary Transformer Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
087	Unit 3 Auxiliary Transformer Area - Fire Area OD	E, D	D	None	Detection System, Alarm Point 13: D Water Suppression, 3-10-1302: E D Water Suppression, 3-10-1581: E D Water Suppression, 3-10-1601: E D

**Fire Area ID:** OD-088 (Unit 3) - Unit 3 Switchgear/D.G. Building Vestibule  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
088	Unit 3 Switchgear / DG Building Vestibule - Fire Area OD	None	None	E	<div style="border: 2px dashed red; border-radius: 25px; padding: 10px;">                     Combustible Loading: E                      Physical separation: E  <b>Fire Retardant Cable Coating: E</b> </div>

**Fire Area ID:** OD-088 (Unit 4) - Unit 3 Switchgear/D.G. Building Vestibule  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
088	Unit 3 Switchgear / DG Building Vestibule - Fire Area OD	None	None	E	Combustible Loading: E Physical separation: E

**Fire Area ID:** OD-089 (Unit 3) - Unit 3 Condensate Storage Tank Area  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
089	Unit 3 Condensate Storage Tank Area - Fire Area OD	None	None	E, D	<div style="border: 2px dashed red; border-radius: 25px; padding: 10px;">                     Combustible Control - Transient Restrictions: D                      Combustible Loading: E  <b>Fire Retardant Cable Coating: E</b> </div>



### Attachment C

**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OD-999 (Unit 4) - Miscellaneous Areas  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
999	Miscellaneous Areas - Fire Area OD	None	None	None	None

**Fire Area ID:** OD-Intake (Unit 3) - Intake Structure  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
119	Unit 4 Circulating Water Intake Structure - Fire Area OD	None	None - D	E	Combustible Loading: E Detection System, Alarm Point 26: D
120	Unit 3 Circulating Water Intake Structure - Fire Area OD	None	None - D	E	Combustible Loading: E Detection System, Alarm Point 27: D
121	Units 3 and 4 Intake Laydown Area - Fire Area OD	None	None	None	None

**Fire Area ID:** OD-Intake (Unit 4) - Intake Structure  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
119	Unit 4 Circulating Water Intake Structure - Fire Area OD	None	D	E	Combustible Loading: E Detection System, Alarm Point 26: D
120	Unit 3 Circulating Water Intake Structure - Fire Area OD	None	D	E	Combustible Loading: E Detection System, Alarm Point 27: D
121	Units 3 and 4 Intake Laydown Area - Fire Area OD	None	None	None	None



### Attachment C

**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** OO (Unit 3) - Units 3 and 4 B DC Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All) 108B	Area Wide Units 3 and 4 DC Equipment Room - Fire Area OO	None R, S, N, <del>X</del>	None R, D, S, N, A	R R, S, N, <b>E</b>	Procedures/Recovery Actions: R Detection System, Alarm Point 15: R D S N A ERFBS, 108B-1: R S N ERFBS, 108B-2: R S N Gaseous Suppression, CV-1454 CV-1455: S N <del>X</del> R <b>Fire Retardant Cable Coating: E</b>

**Fire Area ID:** OO (Unit 4) - Units 3 and 4 B DC Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All) 108B	Area Wide Units 3 and 4 DC Equipment Room - Fire Area OO	None R, D, S, N, <del>X</del>	None R, D, S, N, A	R R, S, N, <b>E</b>	Procedures/Recovery Actions: R Detection System, Alarm Point 15: R D S N A ERFBS, 108B-1: R S N ERFBS, 108B-2: R S N Gaseous Suppression, CV-1454 CV-1455: D S N <del>X</del> R <b>Fire Retardant Cable Coating: E</b>

**Fire Area ID:** P (Unit 3) - Unit 4 Containment Building  
**Compliance Basis:** NFPA 805, Section 4.2/3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
059	Unit 4 Containment Building - Fire Area P	None	A	E	Combustible Loading: E Detection System, Alarm Point 43: A Detection System, Alarm Point 44: A

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**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** P (Unit 4) - Unit 4 Containment Building  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
059	Unit 4 Containment Building - Fire Area P	None	E, D, A	E, R, S, N	Combustible Loading: E S N Detection System, Alarm Point 43: E D A Detection System, Alarm Point 44: E D A ERFBS, 059-1: E S N ERFBS, 059-2: E S N ERFBS, 059-3: E S N ERFBS, 059-4: E S N ERFBS, 059-5: E S N ERFBS, 059-6: E S N Radiant Energy Heat Shield: E R S N <b>Fire Retardant Cable Coating: E</b>

**Fire Area ID:** PP (Unit 3) - Unit 4 Battery Rack A Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
109	Unit 4 Battery Rack A Room - Fire Area PP	None	R, A	None	Detection System, Alarm Point 15: R A

**Fire Area ID:** PP (Unit 4) - Unit 4 Battery Rack A Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
109	Unit 4 Battery Rack A Room - Fire Area PP	None	R, A	None	Detection System, Alarm Point 15: R A

### Attachment C

**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** Q (Unit 3) - Unit 3 Containment Building  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
060	Unit 3 Containment Building - Fire Area Q	None	E, D	E, R, S, N	Combustible Loading: E S N Detection System, Alarm Point 3: E D Detection System, Alarm Point 4: E D ERFBS, 060-1: E S N ERFBS, 060-10: E S N ERFBS, 060-2: E S N ERFBS, 060-3: E S N ERFBS, 060-4: E S N ERFBS, 060-5: E S N ERFBS, 060-6: E S N ERFBS, 060-7: E S N ERFBS, 060-8: E S N ERFBS, 060-9: E S N Radiant Energy Heat Shield: E R S N <b>Fire Retardant Cable Coating: E</b>

**Fire Area ID:** Q (Unit 4) - Unit 3 Containment Building  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
060	Unit 3 Containment Building - Fire Area Q	None	None	E	Combustible Loading: E

**Fire Area ID:** QQ (Unit 3) - Unit 3 Battery Rack B Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
110	Unit 3 Battery Rack B Room - Fire Area QQ	None	R, A	None	Detection System, Alarm Point 15: R A



**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** RR (Unit 4) - Unit 4 Train A Emergency Diesel Generator Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
138	Unit 4 Train A Emergency Diesel Generator Room - Fire Area RR	E, R, D	R, D, E	None	Detection System, All available - RR: R D E Water Suppression, 4-10-1112: E R D

**Fire Area ID:** S (Unit 3) - Units 3 and 4 Computer Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
062	Units 3 and 4 Computer Room - Fire Area S	None	R, D, A	None	Detection System, Alarm Point 31: R D A

**Fire Area ID:** S (Unit 4) - Units 3 and 4 Computer Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
062	Units 3 and 4 Computer Room - Fire Area S	None	R, D, A	None	Detection System, Alarm Point 31: R D A

**Fire Area ID:** SS (Unit 3) - Unit 4 Train B Emergency Diesel Generator Room  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
133	Unit 4 Train B Emergency Diesel Generator Room - Fire Area SS	E, A	A	None	Detection System, All available - SS: A Water Suppression, 4-10-1112: EX

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**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** SS (Unit 4) - Unit 4 Train B Emergency Diesel Generator Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
133	Unit 4 Train B Emergency Diesel Generator Room - Fire Area SS	E, D, A	R, D, A, E	None	Detection System, All available - SS: R, D, A, E Water Suppression, 4-10-1113: E, D, A, D

**Fire Area ID:** T (Unit 3) - Unit 3 Reactor Control Rod Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	D	Procedures/Recovery Actions: D
063	Unit 3 Reactor Control Rod Equipment Room - Fire Area T	None	D, A	None	Detection System, Alarm Point 6: D A

**Fire Area ID:** T (Unit 4) - Unit 3 Reactor Control Rod Equipment Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
063	Unit 3 Reactor Control Rod Equipment Room - Fire Area T	None	A	None	Detection System, Alarm Point 6: A

**Fire Area ID:** TT (Unit 3) - Train A SD - Unit 3 Switchgear Room 3D  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
134	Unit 3 Switchgear Room 3D - Fire Area TT	None	A	E	Combustible Loading: E Detection System, Detection 134: A

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**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** WW (Unit 3) - Unit 4 Train A Diesel Fuel Oil Handling Areas  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
141	Unit 4 Train A Diesel Oil Transfer Pump Room - Fire Area WW	E, A	A	None	Detection System, Detection 141: A Water Suppression, 4-10-1122 (4A): E
142	Unit 4 Train A Diesel Oil Storage Tank - Fire Area WW	None	None	None	None

**Fire Area ID:** WW (Unit 4) - Unit 4 Train A Diesel Fuel Oil Handling Areas  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
141	Unit 4 Train A Diesel Oil Transfer Pump Room - Fire Area WW	E, A	A, E	None	Detection System, Detection 141: A Water Suppression, 4-10-1122 (4A): E
142	Unit 4 Train A Diesel Oil Storage Tank - Fire Area WW	None	None	None	None

**Fire Area ID:** X (Unit 3) - 4160V Switchgear 3A Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R, D	Procedures/Recovery Actions: R D
071	4160V Switchgear 3A Room - Fire Area X	None	D, A	R, S, N	Detection System, Alarm Point 1: D A Detection System, Modification - X U3: D ERFBS, 071-1: R S N ERFBS, 071-2: R S N

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**Attachment C**  
**Table C-2 NFPA 805 Required Fire Protection Systems and Features**

**Fire Area ID:** X (Unit 4) - 4160V Switchgear 3A Room  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
(All)	Area Wide	None	None	R	Procedures/Recovery Actions: R
071	4160V Switchgear 3A Room - Fire Area X	None	R, D, A	None	Detection System, Alarm Point 1: R D A Detection System, Modification - X U4: D

**Fire Area ID:** XX (Unit 3) - Unit 4 Train B Diesel Fuel Oil Handling Areas  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
136	Unit 4 Train B Diesel Oil Transfer Pump Room - Fire Area XX	E, A	A	None	Detection System, Detection 136: A Water Suppression, 4-10-1122 (4B): E, X
137	Unit 4 Train B Diesel Oil Storage Tank - Fire Area XX	None	None	None	None

**Fire Area ID:** XX (Unit 4) - Unit 4 Train B Diesel Fuel Oil Handling Areas  
**Compliance Basis:** NFPA 805, Section 4.2.3.2, Separate Fire Area

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
136	Unit 4 Train B Diesel Oil Transfer Pump Room - Fire Area XX	E, A	A, E	None	Detection System, Detection 136: A Water Suppression, 4-10-1122 (4B): E, X
137	Unit 4 Train B Diesel Oil Storage Tank - Fire Area XX	None	None	None	None

**Fire Area ID:** Y (Unit 3) - Unit 3 Train B Emergency Diesel Generator Building  
**Compliance Basis:** NFPA 805, Section 4.2.4, Performance Based Approach

Fire Zone ID	Description	Required Suppression System	Required Detection System	Required Fire Protection Feature	Required Fire Protection Feature and System Details
072	Unit 3 Train B Emergency Diesel Generator Building - Fire Area Y	D, A	D, A	None	Detection System, Alarm Point 16: D A Water Suppression, 3-10-844: D, X

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