

protective ~~gratings~~ barriers. Refer to Section 3.5.3.1.1. These protective barriers are part of the R/B structure outer wall and have the following dimensions: thicknesses of greater than or equal to 20 inches for the vertical sections and greater than or equal to 14 inches for the horizontal section; and width and height greater than the corresponding dimension of the respective ventilation opening.

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The adverse effects associated with tornado depressurization of the outside air intakes and exhaust outlets are prevented by the specially designed tornado dampers located at the outside air intakes and exhaust outlets.

The MCR HVAC system is protected against piping failure due to high energy line breaks and is not affected by any of the effect of postulated break of the piping. The basis for protection against postulated piping failure is discussed in Section 3.6.2.

The closest potential source of fresh air contamination is the exhaust from the emergency gas turbine generators (GTGs). For each GTGs, there are two exhaust sources which are the GTG room ventilation exhaust and the exhaust from the GTG. ~~The minimum horizontal distance from the GTG exhaust to the MCR HVAC system's outside air intakes is approximately 72 feet. And the minimum horizontal distance from the GTG room ventilation fan exhaust vents to the outside air intakes is approximately 65 feet. These are well above the minimum of 10ft. required according to the International Mechanical Code (Ref. 9.4.8-26).~~ Exhaust piping is connected from each GTG exhaust silencer to the respective point of exhaust discharge on the roof of the building. Each GTG room exhaust duct is connected from the GTG room ventilation fan exhaust to the point of exhaust discharge on the roof of the building. The exhaust piping of each GTG, and the exhaust duct of each associated GTG room, is routed to the same exhaust opening on the roof of the building. The distance between the points of exhaust discharge, for each GTG and the associated GTG room and the opening of the MCR HVAC system outside air intake, is designed to be a minimum of 10 ft, as required by the International Mechanical Code (Ref. 9.4.8-26).

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9.4.1.4 Testing and Inspection Requirements

The MCR HVAC system is provided with adequate instrumentation, temperature, flows, and differential pressure indicating devices to facilitate testing and verification of equipment function, heat transfer capability and flow blockage.

The MCR HVAC system is designed to permit periodic inspection and testing of major components, such as fans, motors, dampers, coils, filters and ducts to verify their integrity, operability and capability. The MCR HVAC system equipment and components are provided with proper access for initial and periodic inspection and maintenance activities.

Preoperational testing of the MCR HVAC system is performed as described in Chapter 14, Verification Programs, to verify that system is installed in accordance with applicable programs and specifications.

9.5.8.2.2.3 Piping/ducts

The intake piping, ~~weather louver~~ and screens are provided to supply combustion air to each GTG.

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The turbine and air exhaust piping is made of carbon steel. Duct work is made of galvanized steel. Expansion joints are strategically located to accommodate the thermal growth of the exhaust piping. The piping is of adequate size so that it can accommodate the total pressure drop when the engine is operating at 110% of continuous rating.

9.5.8.2.3 System Operation

Upon initiation of a GTG start signal, combustion air is drawn into the air intake ~~weather louver and~~ screens and passes through the intake piping to the GT intake duct. The combustion air intake ~~weather louver and~~ screens, silencer, and the combustion air piping are sized to supply an adequate supply of air to the GT while operating at 110% of nameplate rating. The turbine exhaust gases enter the turbine exhaust pipe, pass through the turbine exhaust silencer, and are then ducted out of the building. The exhaust piping and silencer are sized to prevent excessive backpressure on the engine when operating at 110% nameplate rating.

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Cooling air is supplied and exhausted out of the building through the air exhaust piping.

9.5.8.3 Safety Evaluation

- A. The GTG combustion air intake and exhaust system is capable of supplying an adequate quantity of combustion air to the GT and of disposing the exhaust gases without creating an excessive backpressure on the GT when operating at 110% of nameplate rating. Cooling air is supplied to the GTG and exhausted from the building.

The power source buildings (PS/Bs) are equipped with a fire suppression system.

US-APWR power block general arrangement drawings (Chapter 1) show the physical relationship of the PS/B to those plant features, which could affect the system. The PS/B is not located near any gas storage facilities. The hydrogen storage facility is 600 ft. away, and the nitrogen bulk storage is 600 ft. away.

The distances between the PS/B and those facilities are adequate to ensure that an accidental release of these gases does not degrade GTG performance.

The turbine intake and exhaust openings above the roof of the PS/B, and the portion of the piping/ducts above the roof is ~~protected by a guard structure against precipitation, and designed to prevent damage from~~ tornado missiles and hurricane missiles in accordance with Subsection 3.5.3. ~~The reinforced concrete guard structures are integrally attached to the roofs and act as extensions of the seismic category I PS/Bs. The guard structures~~ The missile shields or barriers, if required, are designed as seismic category I to withstand the effects of natural phenomena in accordance with GDC 2 and to withstand environmental effects in accordance with GDC 4. The turbine exhaust is located appropriately away from

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fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-EFWS (M/D)
- B-EFW Pump Area HVAC System
- B-Safety I&C System

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiological controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.5 FA2-104 A-Component Cooling Water Pump Room

Figures 9A-1 and 9A-2 show the location of this fire area in the southeastern portion of the R/B. This fire area consists of one fire zone designated as fire zone FA2-104-01. This room contains A-CCWP and CCW HX. Maximum fire loading within this fire area is not expected to exceed 3.124×10^4 Btu/ft² with the primary fire hazard being electrical cables and wiring associated with the CCWP motor. A minor amount of lube oil and grease are associated with the CCWP. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetration into the room are protected with 3-hour fire resistive seals or components. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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This area is identified as being associated with safety train A.

-
- A-CCWS
 - A-ESWS
 - A-CS/RHRS
 - A-SIS
 - A-Class 1E Power System (480V)
 - A-Safety I&C System
 - A CCW Pump Area HVAC System
 - A-EFW Pump Area HVAC System
 - [A-EFWS \(T/D\)](#)
 - [A-Essential Chilled Water System](#)
 - [A-GTG System](#)

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Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiological controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.6 FA2-105 B-Component Cooling Water Pump Room

Figures 9A-1 and 9A-2 show the location of this fire area in the south central portion of the R/B. This fire area consists of one fire zone designated as fire zone FA2-105-01. This room contains B-CCWP and CCW HX. Maximum fire loading within this fire area is not expected to exceed $3.0E+04$ Btu/ft² with the primary fire hazard being electrical cables and wiring associated with the CCWP motor. A minor amount of lube oil and grease are associated with the CCWP. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetrations into the room are protected with 3-hour fire resistive seals or components.

This area is identified as being associated with safety train B.

-
- B-CCWS
 - B-ESWS
 - B-EFWS
 - B-Class 1E Power System (480V)
 - B-Safety I&C System
 - B-CCW Pump Area HVAC System
 - B-EFW Pump Area HVAC System
 - [B-CS/RHRS](#)
 - [B-SIS](#)
 - [B-Essential Chilled Water System](#)
 - [B-GTG System](#)

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Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.7 FA2-106 C-Component Cooling Water Pump Room

Figures 9A-1 and 9A-2 show the location of this fire area in the south central portion of the R/B. The fire area consists of one fire zone designated as fire zone FA2-106-01. This room contains C-CCWP and CCW HX. Maximum fire loading within this fire area is not expected to exceed $3.0E+04$ Btu/ft² with the primary fire hazard being electrical cables and wiring associated with the CCWP motor. A minor amount of lube oil and grease are associated with the CCWP. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetrations into the room are protected with 3-hour fire resistive seals or components.

This area is identified as being associated with safety train C.

- C-CCWS
- C-ESWS
- C-EFWS (M/D)
- C-Class 1E Power System (480V)
- C-Safety I&C System
- C-CCW Pump Area HVAC System
- C-EFW Pump Area HVAC System
- [C-GTG System](#)
- [C-CS/RHRS](#)
- [C-SIS](#)
- [C-Essential Chilled Water System](#)

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Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiological controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.8 FA2-107 D-Component Cooling Water Pump Room

Figures 9A-1 and 9A-2 show the location of this fire area in the southwestern portion of the R/B. This fire area consists of one fire zone designated as fire zone FA2-107-01. This room contains D-CCWP and CCW HX. Maximum fire loading within this fire area is not expected to exceed $3.2E+04$ Btu/ft² with the primary fire hazard being electrical cables and wiring associated with the CCWP motor. A minor amount of lube oil and grease are associated with the CCWP. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetrations into the room are protected with 3-hour fire resistive seals or components. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-CCWS
- D-ESWS
- D-CS/RHRS
- D-SIS
- D-Class 1E Power System (480V)
- D-Safety I&C System
- D-CCW Pump Area HVAC System
- D-EFW Pump Area HVAC System
- [D-EFWS \(T/D\)](#)
- [D-GTG System](#)
- [D-Essential Chilled Water System](#)

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Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiological controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.9 FA2-108 D-Emergency Feedwater Pump (T/D) Room

Figures 9A-1 through 9A-4 show the location of this fire area in the southeastern corner of the R/B. This fire area consists of one fire zone designated as fire zone FA2-108-01. This room contains D-EFW pump (T/D) and D-EFW pump area AHU. There is sufficient combustible fire loading from lube oil and electrical cable insulation to result in a maximum anticipated fire loading of $1.1E+05$ Btu/ft². The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetrations into the room are protected with 3-hour fire resistive seals or components. [In addition to](#)

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water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-CS/RHRS
- A-SIS
- A-Safeguard Component Area HVAC System
- A-Safety I&C System

Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.13 FA2-112 FA2-112 Corridor

Figures 9A-1 and 9A-2 show the location of this fire area which is corridor located on the south portion of the R/B. The fire area consists of one fire zone designated as fire zone FA2-112-01. The structural boundaries of the fire area provide a minimum of 3-hour fire resistance to an ASTM E-119 exposure fire. All penetrations between adjacent areas and FA2-112 are protected with 3-hour fire rated penetration seals and components. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Maximum anticipated fire loading within the corridor is not expected to exceed $2.92E+04$ Btu/ft². The combustible loading is due to the presence of safety train D associated electrical cables, panels, instrumentation and controls.

FA2-112 is identified as being associated with safety train D.

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Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function

- D-CS/RHRS
- D-SIS
- D-Safeguard Component Area HVAC System
- D-Safety I&C System
- D-Remote Shutdown System
- [D-Class 1E Power system](#)
- [D-GTG System](#)
- [D-ESWS](#)
- [D-CCWS](#)
- [D-Essential Chilled Water System](#)

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Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. The piping systems in the area do not contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.14 FA2-113 A-SI Pump Room, CS/RHR Pump Room Area

Figure 9A-1 and 9A-2 show the location of this fire area in the northeast corner of the R/B. The fire area consists of four individual rooms each assigned a specific fire zone designation. FA2-113-01 is the A SIP room, FA2-113-02 is the A CS/RHR pump room and FA2-113-03 is the corridor that provides access to the two pump rooms, FA2-113-04 is the A R/B Sump Tank Room. The fire loading in the SIP room is not expected to exceed $4.6E+04$ Btu/ft² of lube oil in the SIP and low voltage and control electrical cable within the room. The fire loading within the CS/RHR pump room is lower at a maximum expected fire loading of $3.0E+04$ Btu/ft² due to high voltage, low voltage and control electrical cable within the room and lube oil associated with the pump. The maximum

expected to exceed $9.36.2E+02$ Btu/ft². The stair well is separated from the surrounding fire areas on each building level by construction rated to provide at least 3-hour fire resistance of ASTM E-119.

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FA2-119 is the non-safe-shutdown area for US-APWR.

Fire Detection and Suppression Features

FA2-119-01 is provided with manual fire alarm pull station. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Fire doors installed in accordance with NFPA 80 help to reduce the introduction of smoke into the stairwell from adjacent fire areas. Should additional smoke removal capacity be required, the plant fire brigade can assist the smoke removal for the stairwell utilizing portable equipment.

Fire Protection Adequacy Evaluation

The fire loading within the stairwell is negligible and is of ordinary combustibles that can be extinguished by portable fire extinguishers or fire hose streams. The boundaries of the stairwell are rated for 3-hour fire resistance and all penetrations into the fire area or openings to it are appropriately addressed for fire protection. There is therefore adequate fire protection for this area.

Fire Protection System Integrity

The fire boundaries of the stairwell are of substantial construction and provide protection of at least 3 hours of ASTM E-119 exposure. While there is no automatic fire detection or suppression systems located within the stairwell, the extremely low expected maximum fire loading is not capable of compromising the structural integrity of the stairwell boundaries. This provides more than adequate assurance of fire protection system integrity for the stairwell.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiological controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire area and fire zones incur uncontrolled leakage. Even if radioactive material was

certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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This area is identified as being associated with safety train A, ~~and~~ D and non-safety train.

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Fire Detection and Suppression Features

FA2-127-01~08 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area's individual fire zones varies from negligible to light and is not comprised of highly combustible materials. The major combustible material present consists of electrical cable insulation and minor plastic contained with a few instruments and controls present. The most likely fire threat to the area is from transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire

suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire area and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this area, the smoke products would be confined to the area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.27 FA2-128 B – Spent Fuel Pit Pump Room

The FA2-128 area consists of four individual fire zones located within the north general area of the R/B. The location of the fire zones of FA2-128 are shown on Figures 9A-2 through 9A-4. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each fire zone associated with FA2-128.

Fire Zone	Designation	Fire Loading (Btu/ft ²)
FA2-128-01	FA2-128 - 01 Corridor	1.56E+04
FA2-128-02	FA2-128 - 02 Corridor	3.0E+04
FA2-128-03	B – Spent Fuel Pit Pump Room	3.0E+04
FA2-128-04	B – Spent Fuel Pit Hx Room	2.8E+04

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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This area is identified as being associated with safety train D.

9A.3.31 FA2-152 C-RHR Piping Room Area

The C-RHR piping room area is located in the southwest corner of the radiologically controlled access portion of the R/B as shown on Figures 9A-2 through 9A-6. This fire area consists of six fire zones which have overall maximum fire loading and designation as follows:

Fire Zone No.	Designation	Fire Load (Btu/ft ²)
FA2-152-01	C RHR Piping Room	2.8E+04
FA2-152-02	C Safeguard Component Area AHU Room	3.3E+04
FA2-152-03	C CS/RHR Hx Room	2.7E+04
FA2-152-04	FA2-152-04 Corridor	2.9 3.0E+04
FA2-152-05	R/B-2F C-Piping Penetration Area (FA2-152-05)	3.1E+04
FA2-152-06	R/B-2F C-Piping Penetration Area (FA2-152-06)	4.8E+04

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The borders of this fire area are constructed using reinforced concrete which results in fire resistance that exceeds a 3-hour ASTM E-119 fire exposure. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA2-152-01~06 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this area, the smoke products would be confined to the area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.32 FA2-153 D-RHR Piping Room Area

The D-RHR piping room area is located in the northwest corner of the radiologically controlled access portion of the R/B as shown on Figures 9A-2 through 9A-6. This fire area consists of five fire zones which have overall maximum fire loading and designation as follows:

Fire Zone No.	Designation	Fire Load (Btu/ft ²)
FA2-153-01	D RHR Piping Room	2.8E+04
FA2-153-02	FA2-153-02 Corridor	2.6E+04
FA2-153-03	D CS/RHR Hx Room	2.67E+04
FA2-153-04	D Safeguard Component Area AHU Room	3.0E+04
FA2-153-05	R/B-2F D-Piping Penetration Area(FA2-153-05)	3.2E+04

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The borders of this fire area are constructed using reinforced concrete which results in fire resistance that exceeds a 3-hour ASTM E-119 fire exposure. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA2-153-01 through 05 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is

- D-Remote Shutdown System

Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this area, the smoke products would be confined to the area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.33 FA2-154 A-RHR Piping Room Area

The A-RHR piping room area is located in the northeast corner of the radiologically controlled access portion of the R/B as shown on Figures 9A-2 through 9A-6. The fire area consists of seven fire zones which have overall maximum fire loading and designation as follows:

Fire Zone No.	Designation	Fire Loading (Btu/ft ²)
FA2-154-01	A RHR Piping Room	2.8E+04
FA2-154-02	FA2-154-02 Corridor	2.6E+04
FA2-154-03	A CS/RHR Hx Room Area	2.6E+04
FA2-154-04	A Safeguard Component Area AHU Room	3.04E+04
FA2-154-05	R/B-2F A-Penetration Area (FA2-154-05)	3.0E+04
FA2-154-06	C/V Personnel Airlock Zone	2.4E+04

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The borders of this fire area are constructed using reinforced concrete which results in fire resistance that exceeds a 3-hour ASTM E-119 fire exposure. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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This fire area is identified as being associated with safety train A.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Safety I&C system
- B-Class 1E Power system
- B-CS/RHRS
- B-SIS
- ~~B Main Control Room HVAC System~~
- B-Class 1E Electrical Room HVAC System
- ~~B Safeguard Component Area HVAC System~~
- B-Essential Chilled Water System

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- B-ESWS

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Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the structure which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.36 FA2-202 A-Class 1E Electrical Room

Figures 9A-3 and 9A-6 show the location of FA2-202 in the east side of the non-radiologically controlled access portion of the south R/B. The fire area consists of one fire zone designated as fire zone FA2-202-01 and contains the A-Class 1E metal clad switch gear and load center. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetration into the room are protected with 3-hour fire resistive seals or components. Maximum fire loading within this fire area is not expected to exceed $4.29.8E+054$ Btu/ft² with the primary fire hazard being the plastic and electrical insulation associated with the load center components.

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The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA2-202-01 is provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-Class 1E Power system
- A-Safety I&C system
- A-ESWS
- A-EFWS (T/D)
- A-CCWS
- A-CS/RHRS
- A-SIS
- A-Main Control Room HVAC System
- A-Class 1E Electrical Room HVAC System
- A-Class 1E Battery Room HVAC System
- A-Safeguard Component Area HVAC System
- A-EFW Pump Room HVAC System
- A-CCW Pump Area HVAC System
- A-Essential Chilled Water System
- A-Essential Chiller Unit Area HVAC System
- A-Remote Shutdown System
- D-EFWS (T/D)

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Since this fire area is separated from the Train B, C and D areas by 3-hour fire rated barriers, one or two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.37 FA2-203 B-Class 1E Electrical Room

Figures 9A-3 and 9A-4 show the location of FA2-203 in the east side of the non-radiologically controlled access portion of the south R/B. The fire area consists of one fire zone designated as fire zone FA2-203-01 and contains the B-Class 1E metal clad switch gear and load center. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetration into the room are protected with 3-hour fire resistive seals or components. Maximum fire loading within this fire area is not expected to exceed $87.9E+04$ Btu/ft² with the primary fire hazard being the plastic and electrical insulation associated with the load center components.

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The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA2-203-01 is provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is heavy and likely to involve energized equipment. A gaseous automatic fire suppression system, however, is installed which is appropriate for energized equipment. Hose streams would be applied after de-energizing of the room's equipment. Floor drains are provided to prevent excessive water buildup from fire fighting.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

- B-EFW Pump Area HVAC System
- B-CCW Pump Area HVAC System
- B-Remote Shutdown System

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

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Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.38 FA2-204 C-Class 1E Electrical Room

Figures 9A-3 and 9A-4 show the location of FA2-204 in the west side of the non-radiologically controlled access portion of the south R/B. The fire area consists of one fire zone designated as fire zone FA2-204-01 and contains the C-Class 1E metal clad switch gear and load center. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetration into the room are protected with 3-hour fire resistive seals or components. Maximum fire loading within this fire area is not expected to exceed $87.9E+04$ Btu/ft² with the primary fire hazard being the plastic and electrical insulation associated with the load center components.

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The area is identified as being associated with safety train C.

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.39 FA2-205 D-Class 1E Electrical Room

Figures 9A-3 and 9A-6 show the location of FA2-205 in the west side of the non-radiologically controlled access portion of the south R/B. The fire area consists of one fire zone designated as fire zone FA2-205-01 and contains the D-Class 1E metal clad switch gear and load center. The walls of this room are of reinforced concrete construction which easily provides a fire resistive capability exceed 3-hour fire resistance as defined by ASTM E-119. The door and all openings or penetration into the room are protected with 3-hour fire resistive seals or components. Maximum fire loading within this fire area is not expected to exceed $4.29.7E+054$ Btu/ft² with the primary fire hazard being the plastic and electrical insulation associated with the load center components.

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The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA2-205-01 is provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

-
- D-Safety I&C system
 - D-EFWS (T/D)
 - D-ESWS
 - D-CCWS
 - D-CS/RHRS
 - D-SIS
 - D-Essential Chiller Unit HVAC System
 - D-Main Control HVAC System
 - D-Class 1E Electrical Room HVAC System
 - D-Class 1E Battery Room HVAC System
 - D-Safeguard Component Area HVAC System
 - D-EFWS HVAC System
 - D-CCW Pump Area HVAC System
 - D-Essential Chilled Water System
 - B-Safety Depressurization Valve (train-D)
 - D-Remote Shutdown System
 - [A-EFWS \(T/D\)](#)

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Since this fire area is separated from the Train A, B and C areas by 3-hour fire rated barriers, one or two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.40 FA2-206 FA2-206 Corridor

The FA2-206 corridor is located in the southwestern portion of the R/B as shown on Figures 9A-3 through 9A-4. The fire area consists of single fire zone, FA2-206-01

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-Safety I&C system
- C-Class 1E Power system
- C-EFWS (M/D)
- C-CS/RHRS
- C-SIS
- C-Essential Chiller Unit HVAC System
- ~~C-Class 1E Electrical Room HVAC System~~
- C-Class 1E Battery Room HVAC System
- ~~C Main Control Room HVAC System~~
- ~~C Safeguard Component Area HVAC System~~
- C-Essential Chilled Water System

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Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Relief Valve (train-C)

9A.3.43 FA2-209 A – Spent Fuel Pit Pump Room

The FA2-209 area consists of seven individual fire zones located within the north general area of the R/B. The location of the fire zones of FA2-209 are shown on Figures 9A-3 through 9A-7. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each fire zone associated with FA2-209.

Fire Zone	Designation	Fire Loading (Btu/ft ²)
FA2-209-01	A – Spent Fuel Pit Hx Room	2.8E+04
FA2-209-02	A – Spent Fuel Pit Pump Room	3.0E+04
FA2-209-03	FA2-209-03 Corridor	3.1E+04
FA2-209-04	FA2-209-04 2F Eastside Corridor	2.9E+04
FA2-209-05	FA2-209-05 2F Westside Corridor	2.8E+04
FA2-209-06	FA2-209-06 3F Eastside Corridor	2.9 3.0E+04
FA2-209-07	FA2-209-07 Piping Room	3.8E+04

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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This area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA2-209-01~04, 06, 07 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

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Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire area and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this area, the smoke products would be confined to the area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.44 FA2-210 FA2-210 Area

The FA2-210 area consists of ~~eleven~~five individual fire zones located within the north general area of the R/B. The location of the fire zones of FA2-210 are shown on Figures 9A-3 through 9A-~~44~~9. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each fire zone associated with FA2-210.

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Fire Zone	Designation	Fire Loading (Btu/ft ²)
FA2-210-10	FA2-210-10 Truck Access	2.7E+04
FA2-210-11	Volume Control Tank Room	4.1E+04
FA2-210-12	FA2-210-12 Piping Room	3.7E+04
FA2-210-13	Spent Fuel Handling Zone	3. 4 <u>2</u> E+04
FA2-210-14	FA2-210-14 Piping Room	2.7E+04
FA2-210-15	FA2-210-15 4F Eastside Corridor	2.8E+04
FA2-210-16	CV Radiation Gas Monitor Room	2.8E+03
FA2-210-17	Pass Sampling Rack Room	8.0E+03
FA2-210-18	Plant Vent Radiation Gas Monitor Room	3.4E+03
FA2-210-19	Fuel Inspection Room	7.9E+03
FA2-210-21	FA2-210-21 4F Westside Corridor	2.7E+04
<u>FA2-210-22</u>	<u>Free Space</u>	<u>1.9E+02</u>

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In general the area contains equipment and circuits that are not associated with a safety train. The walls defining FA2-210 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of power and control electrical cables located in the corridor, fire loading within the corridor is not expected to exceed 3.2E+04 Btu/ft².

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This area is identified as being associated with safety train A and non-safety train.

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water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.45 FA2-211 FA2-211 Area

The FA2-211 area consists of single fire zone located within the north general area of the R/B. The location of the fire zones of FA2-211 is shown on Figures 9A-3 and 9A-4.

The walls defining FA2-211 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of power and control electrical cables located in the corridor, fire loading within the corridor is not expected to exceed 3.04×10^4 Btu/ft².

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This area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA2-211 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent

before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.46 FA2-212 FA2-212 Area

The FA2-212 area consists of two fire zones, FA2-212-01 and FA2-212-02, which are located within the north general area of the R/B. The location of these fire zones of FA2-212 are shown on Figures 9A-3 and 9A-4.

The walls defining FA2-212 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Maximum expected fire loading in FA2-212-01 is ~~2.73~~3.0E+04 BTU/ft² due to electrical cable. Maximum expected fire loading in FA2-212-02 is 2.56E+04 BTU/ft² due to electrical cable.

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This area is identified as being associated with non-safety train.

Fire Detection and Suppression Features

FA2-212 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more

than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.47 FA2-213 FA2-213 Corridor

The FA2-213 area consists of a single individual fire zone located within the northwestern general area of the R/B. The location of the fire zones of FA2-213 are shown on Figures 9A-5 and 9A-6. Maximum expected fire loading in FA2-213-01 is 2.9E+04 Btu/ft² due to electrical cable.

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating.

This area is identified as being associated with safety train A.

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Fire Detection and Suppression Features

FA2-213-01 is provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and is not comprised of highly combustible materials. The major combustible material present consists of electrical cable insulation and minor plastic contained with a few instruments and controls present. The most likely fire threat to the area is from transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any un-suppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

MIC-03-09-00015

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire area and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this area, the smoke products would be confined to the area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.48 FA2-214 FA2-214 Area

The FA2-214 area consists of seven individual fire zones located within the north general area of the R/B. The location of the fire zones of FA2-214 are shown on Figures 9A-5 through 9A-8. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each fire zone associated with FA2-214.

<u>Fire Zone</u>	<u>Designation</u>	<u>Fire Loading (Btu/ft²)</u>
<u>FA2-214-01</u>	<u>Volume Control Tank Room</u>	<u>4.1E+04</u>
<u>FA2-214-02</u>	<u>FA2-214-02 Piping Room</u>	<u>3.7E+04</u>
<u>FA2-214-03</u>	<u>FA2-214-03 Piping Room</u>	<u>2.7E+04</u>
<u>FA2-214-04</u>	<u>Pass Sampling Rack Room</u>	<u>1.0E+04</u>
<u>FA2-214-05</u>	<u>C/V Radiation Gas Monitor Room</u>	<u>2.2E+03</u>
<u>FA2-214-06</u>	<u>Plant Vent Radiation Gas Monitor Room</u>	<u>3.8E+03</u>
<u>FA2-214-07</u>	<u>FA2-214-07 4F Westside Corridor</u>	<u>2.7E+04</u>

In general the area contains equipment and circuits that are not associated with a safety train. The walls defining FA2-214 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating. Due to the small amount of power and control electrical cables located in the corridor, fire loading within the corridor is not expected to exceed 3.2E+04 Btu/ft².

This area is identified as being associated with non-safety train.

Fire Detection and Suppression Features

FA2-214 is generally provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by

manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

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Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided by manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or

potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

MIC-03-09-00015

9A.3.49 FA2-302 A-Class 1E UPS Room

The FA2-302 train A Class 1E UPS room fire area is located on the east side of the non-radiologically controlled access portion of the R/B as depicted in Figures 9A-5 and 9A-6. The room, which is designated as a single fire zone, FA2-302-01, contains ~~the train A Inverter Unit, UPS for MOV, Solenoid Distribution Panel, and Safety AC120V Switch Board~~ the train A Class 1E UPS Unit and so forth. The fire loading due to this combustible content is not expected to exceed ~~3.9~~7.7E+04 Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA2-302-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

9A.3.50 FA2-303 B-Class 1E UPS Room

The FA2-303 train B Class 1E UPS room fire area is located on the east side of the non-radiologically controlled access portion of the R/B as depicted in Figures 9A-5 and 9A-6. The room, which is designated as a single fire zone, FA2-303-01 contains ~~the train B Inverter Unit, UPS for MOV, Solenoid Distribution Panel, and Safety AC120V Switch Board~~ the train B Class 1E UPS Unit and so forth. The fire loading due to this combustible content is not expected to exceed 47.0E+04 Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA2-303-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be

expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Class 1E Power system
- ~~B-Safety I&C system~~
- B-Main Control Room HVAC System
- B-Class 1E Electrical Room HVAC System

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Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.51 FA2-304 A-Class 1E I&C Room

Figures 9A-5 and 9A-6 show the location of this fire area in the eastern half of the non-radiologically controlled access portion of the R/B. The fire area consists of two fire zones, FA2-304-01 A-Class 1E I&C room and FA2-304-02, A-Class 1E I&C room raised-floor zone. Maximum anticipated fire loading in FA2-304-01 is $4.23.3E+04$ Btu/ft² and comprised of combustible materials from control and instrumentation electrical cables, electrical and instrumentation panels, and miscellaneous instrumentation. The sub-floor zone, FA2-304-02, is heavily loaded with electrical cables resulting in a maximum anticipated fire loading to the compartment of $3.72.9E+05$ Btu/ft².

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The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA2-304-01 and FA2-304-02 are provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire

- A-Remote Shutdown System
- [A-EFWS \(T/D\)](#)
- [D-EFWS \(T/D\)](#)

MIC-03-09-00015

Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.52 FA2-307 B-Class 1E I&C Room

Figures 9A-5 and 9A-6 show the location of this fire area in the eastern half of the non-radiologically controlled access portion of the R/B. The fire area consists of two fire zones, FA2-307-01 B-Class 1E I&C room and FA2-307-02, B-Class 1E I&C room raised-floor zone. Maximum anticipated fire loading in FA2-307-01 is $4.33.4E+04$ Btu/ft² and comprised of combustible materials from control and instrumentation electrical cables, electrical and instrumentation panels, and miscellaneous instrumentation. The sub-floor zone, FA2-307-02, is heavily loaded with electrical cables resulting in a maximum anticipated fire loading to the compartment of $4.43.5E+05$ Btu/ft².

MIC-03-09-00015

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The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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S01

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA2-307-01 and FA2-307-02 are provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

by a fire in the main control room does not affect the functions of the remote shutdown console. Transfer from the RSC back to the MCR is activated separately for each of the four transfer systems from each of the safety I&C rooms. Access to the remote shutdown console, the MCR/RSC transfer systems and the transfer switches is administratively controlled through closed areas with key access.

The transfer systems and the remote shutdown console provide the necessary defense-in-depth capability to assure safe plant shutdown in the event of a fire in the main control room area that requires control room evacuation.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.54 FA2-309 D-Class 1E I&C Room

Figures 9A-5 and 9A-6 show the location of this fire area in the western half of the non-radiologically controlled access portion of the R/B. The fire area consists of two fire zones, FA2-309-01 D-Class 1E I&C room and FA2-309-02, D-Class 1E I&C room raised-floor zone. Maximum anticipated fire loading in FA2-309-01 is ~~4.23.3E+04~~ 3.72.9E+05 Btu/ft² and comprised of combustible materials from control and instrumentation electrical cables, electrical and instrumentation panels, and miscellaneous instrumentation. The sub-floor zone, FA2-309-02, is heavily loaded with electrical cables resulting in a maximum anticipated fire loading to the compartment of ~~3.72.9E+05~~ 3.72.9E+05 Btu/ft².

MIC-03-09-00015

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The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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S01

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA2-309-01 and FA2-309-02 are provided with air aspirating VESDA, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from clean gaseous agent. Secondary suppression is provided from manual fire hose station.

would be administratively de-energized prior to administering of fire hose streams. To prevent excessive water buildup on this level from fire fighting, the room is equipped with loop sealed floor drains to remove excessive water.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-Safety I&C system
- D-Class 1E Power system
- D-Remote Shutdown System
- D-EFWS (T/D)
- A-EFWS (T/D)

MIC-03-09-00015

Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.55 FA2-312 C-Class 1E I&C Room

Figures 9A-5 and 9A-6 show the location of this fire area in the western half of the non-radiologically controlled access portion of the R/B. The fire area consists of two fire zones, FA2-312-01 C-Class 1E I&C room and FA2-312-02, C-Class 1E I&C room raised-floor zone. Maximum anticipated fire loading in FA2-312-01 is ~~4.3~~3.4E+04 Btu/ft² and comprised of combustible materials from control and instrumentation electrical cables, electrical and instrumentation panels, and miscellaneous instrumentation. The sub-floor zone, FA2-312-02, is heavily loaded with electrical cables resulting in a maximum anticipated fire loading to the compartment of ~~4.4~~3.5E+05 Btu/ft².

MIC-03-09-00015

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The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors.

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this is a safety-related area, all fire protection system piping is supported to seismic criteria to prevent its falling on safety-related equipment and causing damage during a SSE. The clean agent fire extinguishing system is of the type typically used around electrical equipment such as computer rooms which has been proven to not cause excessive damage of equipment or direct equipment malfunctions. Even so, the automatic fire detection system is installed such that the normal first response to an alarm will normally be the plant fire brigade and that only upon a definite fire signal will agent be discharged. The air aspirating fire alarm system and release mechanism for the clean agent are designed for industrial environments and not subject to inadvertent actuation.

Unintended operation of the fire hose suppression activity is not expected since deliberate manual activation is required. In the event of a fire, the equipment in the room would be administratively de-energized prior to administering of fire hose streams. To prevent excessive water buildup on this level from fire fighting, the room is equipped with loop sealed floor drains to remove excessive water.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-Safety I&C system
- C-Class 1E Power system
- C-Remote Shutdown System

Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

MIC-03-09-00015

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the

area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.56 FA2-313 D-Class 1E UPS Room

The FA2-313 train D Class 1E UPS room fire area is located on the west side of the non-radiologically controlled access portion of the R/B as depicted in Figures 9A-5 and 9A-6. The room, which is designated as a single fire zone, FA2-313-01, contains the train D ~~Inverter Unit, UPS for MOV, Solenoid Distribution Panel and Safety AC120V Switch Board~~ Class 1E UPS Unit and so forth. The fire loading due to this combustible content is not expected to exceed $3.97.7E+04$ Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA2-313-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be

9A.3.57 FA2-314 C-Class 1E UPS Room

The FA2-314 train C Class UPS room fire area is located on the west side of the non-radiologically controlled access portion of the R/B as depicted in Figures 9A-5 and 9A-6. The room, which is designated as a single fire zone, FA2-314-01, contains the train C ~~Inverter Unit, UPS for MOV, Solenoid Distribution Panel and Safety AC120V Switch Board~~ Class 1E UPS Unit and so forth. The fire loading due to this combustible content is not expected to exceed $47.0E+04$ Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA2-314-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be

since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.60 FA2-318 FA2-318 Area

The FA2-318 area consists of the single fire zone located within the southwestern area of the R/B. The location of the fire zone of FA2-318 is shown on Figures 9A-5 through 9A-6.

In this area contains equipment and circuits that are not associated with a safety train. The walls defining FA2-318 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of combustibles, fire loading is not expected to exceed 2.7E+04 Btu/ft².

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This area is identified as being associated with ~~non~~-safety train A.

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Fire Detection and Suppression Features

FA2-318 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

The fire area primarily contains non-safety-related train cables. FA2-320-01 contains maximum expected fire load of 2.76×10^4 Btu/ft². The borders of this fire area are constructed using reinforced concrete which results in fire resistance that exceeds a 3-hour ASTM E-119 fire exposure. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with non-safety train.

Fire Detection and Suppression Features

FA2-320-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-

area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.64 FA2-322 FA2-322 Area

The FA2-322 area consists of single fire zone located within the north area of the R/B. The location of the fire zones of FA2-322 are shown on Figures 9A-5. The walls defining FA2-322 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of power and control electrical cables located in the corridor, fire loading within the corridor is not expected to exceed $2.9E+04$ Btu/ft².

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This area is identified as being associated with ~~non~~-safety train A and D.

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Fire Detection and Suppression Features

FA2-322 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.72 FA2-407 FA2-407 Area

Figure 9A-7 shows the location of this fire area in the west portion of the R/B in non-radiologically controlled access portion of the R/B. The fire area single fire zone designated as FA2-407-03, MCR monitor rooms. The fire area contains primarily electrical cable and miscellaneous panels and I&C which is classified as non-divisionally associated. FA2-407-03 has an overall fire loading not expected to exceed 5.1E+03 Btu/ft².

The borders of this fire area and fire zones are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

FA2-407-03 are identified as being associated with ~~non~~-safety train D.

Fire Detection and Suppression Features

FA2-407-03 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

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9A.3.76 FA2-411 R/B-3F D-Electrical Penetration Area

Figure 9A-7 shows the location of this fire area in the northwest quadrant of the R/B adjacent to the containment wall. This fire area consists of a single fire zone designated as FA2-411-01. This room contains high voltage, low voltage, control and instrumentation electrical cable associated with safety train D. This electrical cable results in a maximum anticipated fire loading for the room of $2.78E+04$ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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FA2-411 is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA2-411-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be

Since this fire area is separated from the Train ~~B~~, C and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown. MIC-03-09-00015

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Isolation Valve
- B-Main Steam Isolation Valve

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Since this area is separated from ~~A~~, C and D Main Steam Isolation Valve by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown. MIC-03-09-00015

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.80 FA2-415 FA2-415 MSFW Piping Room

Figures 9A-7 through 9A-10 show the location of this fire area in the west half of the south R/B area in non-radiologically controlled access area. This fire area consists of a single fire zone designated as FA2-415-01. The room contains main steam & feedwater piping, HVAC ducts and combustible material associated with I&C and control, instrumentation, and low voltage electrical cable which results in a maximum anticipated fire loading of $3.42E+04$ Btu/ft². MIC-03-09-00015

related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-Safety Control System
- ~~B-D~~ EFWS (T/D) (train-D)

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Since this area is separated from train A, ~~and B and C~~ by 3-hour fire barriers, two trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Isolation Valve
- D-Main Steam Isolation Valve

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Since this area is separated from A, ~~and B and C~~ Main Steam Isolation Valve by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

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Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.84 FA2-419 FA2-419 3F Non-Radioactive Area Westside Corridor

The FA2-419 area consists of the single fire zone located within the nonradioactive area of the R/B. The location of the fire zone of FA2-419 is shown on Figures 9A-7.

The walls defining FA2-419 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of combustibles, fire loading is not expected to exceed $2.17E+04$ Btu/ft².

This area is identified as being associated with safety train-~~GD~~.

Fire Detection and Suppression Features

FA2-419 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection

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system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

~~A fire in this area has no potential to damage the ability of safe shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe shutdown.~~ A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

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- D-Safety I&C System
- D-Remote Shutdown System
- B-Safety Depressurization Valve (D train)
- D-SIS
- D-CS/RHR

Since this fire area is separated from the Train A, B and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the

area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.85 FA2-420 FA2-420 Area

The FA2-420 area consists of two fire zones, FA2-420-01 and FA2-420-02, located within the nonradioactive area of the R/B. The location of the fire zone of FA2-420 is shown on Figures 9A-7.

The walls defining FA2-420 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Maximum expected fire loading in FA2-420-01 is $23.8E+04$ due to electrical cable. Maximum expected fire loading in FA2-420-02 is $5.1E+03$ due to small amount of combustibles.

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This area is identified as being associated with safety train-A.

Fire Detection and Suppression Features

FA2-420 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more

- D-CS/RHRS
- B-Safety Depressurization Valve (train-D)
- [D-Safety I&C System](#)
- [D-Remote Shutdown System](#)

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Since this fire area is separated from the Train A, B and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.88 FA2-423 FA2-423 Corridor

The FA2-423 area consists of the single fire zone located within the southwestern area of the R/B. The location of the fire zone of FA2-423 is shown on Figures 9A-7.

The walls defining FA2-423 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12. Due to small amount of combustibles, fire loading is not expected to exceed 2.78.6E+04 Btu/ft².

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This area is identified as being associated with safety train-~~DC~~.

Fire Detection and Suppression Features

FA2-423 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- ~~D-CS/RHRS~~C-Safety I&C System
- ~~B-Safety Depressurization Valve (train D)~~C-Remote Shutdown System
- ~~D-Safety I&C system~~C-Main Control Room HVAC System
- ~~D-Remote Shutdown System~~C-Class 1E Electrical Room HVAC System

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Since this fire area is separated from the Train A, B and GD areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

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A fire in this area has the potential to damage the following system and safe-shutdown function.

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- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.89 FA2-424 FA2-424 Corridor

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The FA2-424 area consists of the single fire zone located within the southeast area of the R/B. The location of the fire zone of FA2-424 is shown on Figures 9A-7. The walls defining FA2-424 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating. Due to small amount of combustibles, fire loading is not expected to exceed 1.5E+05 Btu/ft².

This area is identified as being associated with safety train-B.

Fire Detection and Suppression Features

FA2-424 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

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Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Remote Shutdown System
- B-Main Control Room HVAC System
- B-Class 1E Electrical Room HVAC System

Since this fire area is separated from the Train A, C and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This fire area is within the radiologically controlled access area of the R/B. The potential radiological material within this area is most likely associated with transient material or potential contamination if piping systems containing radiological materials in the adjacent fire areas and fire zones incur uncontrolled leakage. Even if radioactive material was released by a fire occurring in this corridor, the smoke products would be confined to the corridor area and if released into the adjacent areas; it would release to the environment through the R/B ventilation system after appropriate filtration. Any water discharge for fire fighting purposes would be confined to the R/B and appropriate treatment would occur before release to the environment. There is therefore, no credible radioactive release from a fire in this fire area.

9A.3.90 FA2-501 A-Emergency Feedwater Pit Room

Figures 9A-8 and 9A-9 show the location of this fire area in the south portion in non-radiologically controlled access area of the R/B. This fire area consist of a single fire zone designated as FA2-501-02. The fire loading in this fire area is not expected to exceed 7.2E+01 BUT/ft².

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

The area is identified as being associated with ~~non~~-safety train A and B.

Fire Detection and Suppression Features

FA2-501-02 is provided with manual fire alarm pull station. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

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penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with safety train [GD](#).

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Fire Detection and Suppression Features

This fire area is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels,

controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.98 FA2-509 FA2-509 Area

The FA2-509 area consists of the single fire zone, FA2-509-01, located within the nonradioactive area of the R/B. The location of the fire zone of FA2-509 is shown on Figures 9A-8 and 9A-9. Maximum expected fire load of this fire zone is $2.67E+04$ Btu/ft².

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The walls defining FA2-509 are of substantial reinforced concrete which provides 3-hour ASTM E-119 fire resistance. Openings and penetrations into the area are protected to maintain a 3-hour fire separation. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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And, this fire area is appropriately divided into a few fire zone groups. The boundaries of each fire zone group is rated to provide 3-hour fire resistance to the adjacent fire zone group although each fire zone have the structural barriers of reinforced concrete with some open spaces to the adjacent fire zones within the same group.

This area is identified as being associated with safety train-A,B,C and D.

Fire Detection and Suppression Features

FA2-509 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent

Since this area is separated from other 2 trains of safety instrumentation systems by 3-hour fire barriers, two equipment in other areas can achieve and maintain safe-shutdown from full power. Therefore, the fire in this fire area will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.99 FA2-510 FA2-510 Area

Figures 9A-8 shows the location of this fire area in the south portion in non-radiologically controlled access area of the R/B. The fire area is located on the west area of this south R/B section and is subdivide into two individual fire zones. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each fire zone associated with FA2-510.

Fire Zone No.	Designation	Fire Loading (Btu/ft ²)
FA2-510-01	LRT Room	1.1E+03
FA2-510-02	CRDM Cabinet Room	3.4E+04

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance. In addition to the 3-hour fire resistance rating, certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

The area is identified as being associated with safety train **GD**.

Fire Detection and Suppression Features

This fire area is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries.

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Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

~~A fire in this area has the potential to damage the following typical system of safe shutdown function:~~

- ~~C Remote Shutdown System~~

~~Since this fire area is separated from the Train A, B and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe shutdown.~~ A fire in this area has no potential to damage the ability of safe shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe shutdown.

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certain barriers are designed to provide 5 psid pressure resistance, including doors, penetration seals and dampers. The fire barriers with 5 psid requirements are identified in Figures 9A-1 through 9A-12.

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The area is identified as being associated with ~~non~~-safety train C and D.

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Fire Detection and Suppression Features

This fire area is provided with manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The walls forming the boundaries of this area are very substantial concrete construction that is capable of several hours of fire exposure to an ASTM E-119 fire exposure. There is no credible fire scenario for this inaccessible area that contains no combustible material. Even so, should a fire occur within this space, no damage to any plant function or adverse impact to plant safety would result.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the

Radioactive Release to Environment Evaluation

This area is located in the south R/B portion of the plant which is within the non-radiologically controlled access area of the R/B. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.107 FA3-101 A-Essential Chiller Unit & Pump Room

Figure 9A-11 shows the location of this fire area on the west side of the east PS/B. This fire area consists of a single fire zone designated as FA3-101-01. This room contains A-essential chilled water system equipment. There is sufficient combustible fire loading from the electrical cables, lube oil, and panels associated with the chilled water unit to result in a maximum anticipated fire loading of 3.4×10^4 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA3-101-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-Essential Chilled Water system
- A-Essential Chiller Unit Area HVAC
- A-Safety Control System
- A-EFWS (T/D)

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Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.108 FA3-102 B-Essential Chiller Unit & Pump Room

Figure 9A-11 shows the location of this fire area on the west side of the east PS/B. This fire area consists of a single fire zone designated as FA3-102-01. This room contains B-

essential chilled water system equipment. There is sufficient combustible fire loading from the electrical cables, lube oil, and panels associated with the chilled water unit to result in a maximum anticipated fire loading of 3.4×10^4 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-102-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all

fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Essential Chilled Water system
- B-Essential Chiller Unit Area HVAC System
- B-Safety Control System

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.109 FA3-103 B-Class 1E GTG Room

Figures 9A-11 and 9A-12 show the location of this fire area on the west side of the east PS/B adjacent to the south portion of the R/B. This fire area consists of ~~three~~four individual fire zones, FA3-103-01, B-GTG Auxiliary Component room, FA3-103-02, B-GTG Fuel Piping Area, ~~and~~ FA3-103-03, B-Class 1E GTG room, and FA3-103-04. B-Class 1E Gas Turbine Generator Control Board Room. B-GTG Auxiliary Component room has combustible fire loading that is not expected to exceed $8.8E+02$ Btu/ft². FA3-103-02 zone has combustible loading not expected to exceed ~~34.7E+02~~3 Btu/ft². B-Class 1E GTG room has combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading of ~~2.53.6E+05~~3.6E+05 Btu/ft². B-Class 1E Gas Turbine Generator Control Board Room has combustible fire loading that is not expected to exceed $3.0E+04$ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-103-01 and FA3-103-02 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

FA3-103-03 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from wet-pipe automatic sprinkler system. Secondary suppression is provided from manual fire hose station.

FA3-103-04 is provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

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Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The potential fire loading from the gas turbine package is addressed with a wet-pipe sprinkler system as recommended by code and regulatory guidance. The fire area has substantial concrete reinforced walls that are designed to seismic category I criteria and are rated for a minimum of 3-hour fire resistance. Additional fire suppression capability is provided with fire hose streams and portable fire extinguishers. In addition both zones of the area are provided with automatic fire detection and manual alarm notification as backup. The combination of structural confinement, automatic fire suppression, automatic fire alarm notification and manual backup provides a defense-in-depth approach toward assuring the fire protection adequacy of this fire area.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be

expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The sprinkler system within the room is designed to NFPA 13 and is seismically supported to prevent the sprinkler piping from falling on the safety-related equipment during a design basis earthquake. The manual fire hose are in an alternate area and can only discharge water by deliberate manual action. The fire suppression system is designed to contain the pressure of the water and sprinkler heads are designed to only discharge water if their thermal element indicated a fire condition. Should the sprinkler system inadvertently discharge, the gas turbine is protected by its enclosure. On this basis, there is little potential for an unintended actuation of the fire suppression system adversely affecting the operation of the plant.

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-GTG system
- B-Class 1E Power system
- B-Class 1E Battery System
- B-Essential Chiller Unit Area HVAC System
- B-Class 1E Battery Room HVAC System
- B-Essential Chilled Water System
- B-Safety Control System
- [B-CS/RHRS](#)
- [B-ESWS](#)
- [B-SIS](#)

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- A-SIS

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Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this area has the potential to damage the following system and safe-shutdown function.

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- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.110 FA3-104 A-Class 1E GTG Room

Figures 9A-11 and 9A-12 show the location of this fire area on the west side of the east PS/B adjacent to the south portion of the R/B. This fire area consists of ~~three~~four individual fire zones, FA3-104-01, A-GTG Auxiliary Component room, FA3-104-02, A GTG Fuel Piping Area, FA3-104-03 A-Class 1E GTG room, and FA3-104-04, A-Class 1E Gas Turbine Generator Control Board Room. A-GTG Auxiliary Component room has combustible fire loading that is not expected to exceed $8.8E+02$ Btu/ft². FA3-104-02 has combustible fire loading not expected to exceed ~~$9.31.9E+023$~~ Btu/ft². FA3-104-03 has combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading of ~~$2.53.7E+05$~~ Btu/ft². FA3-104-04 has combustible fire loading that is not expected to exceed $4.3E+04$ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA3-104-01 and FA3-104-02 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

FA3-104-03 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from wet-pipe automatic sprinkler system. Secondary suppression is provided from manual fire hose station.

FA3-104-04 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

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Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The potential fire loading from the gas turbine package is addressed with a wet-pipe sprinkler system as recommended by code and regulatory guidance. The fire area has substantial concrete reinforced walls that are designed to seismic category I criteria and are rated for a minimum of 3-hour fire resistance. Additional fire suppression capability is provided with fire hose streams and portable fire extinguishers. In addition both zones of the area are provided with automatic fire detection and manual alarm notification as backup. The combination of structural confinement, automatic fire suppression, automatic fire alarm notification and manual backup provides a defense-in-depth approach toward assuring the fire protection adequacy of this fire area.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The sprinkler system within the room is designed to NFPA 13 and is seismically supported to prevent the sprinkler piping from falling on the safety-related equipment during a design basis earthquake. The manual fire hose are in an alternate area and can only discharge water by deliberate manual action. The fire suppression system is designed to contain the pressure of the water and sprinkler heads are designed to only discharge water if their thermal element indicated a fire condition. Should the sprinkler system inadvertently discharge, the gas turbine is protected by its enclosure. On this basis, there is little potential for an unintended actuation of the fire suppression system adversely affecting the operation of the plant.

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-GTG system
- A-Class 1E Power system
- A-Class 1E Battery System
- A-Essential Chiller Unit Area HVAC System
- A-Essential Chilled Water System
- A-Class 1E Battery Room HVAC System
- A-Safety Control System
- [A-CS/RHRS](#)
- [A-EFWS \(T/D\)](#)
- [D-EFWS \(T/D\)](#)
- [A-ESWS](#)
- [A-SIS](#)

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Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.111 FA3-105 A-AAC GTG Room

Figures 9A-11 and 9A-12 show the location of this fire area on the east side of the east PS/B. This fire area consists of three individual fire zones, FA3-105-01, A-AAC Power Source Starter Battery Room, FA3-105-02 A-AAC GTG room and FA3-105-03 A-AAC Fuel Piping Area. The FA3-105-01 zone has the combustible fire loading that is not expected to exceed ~~4.9.2E+04~~3 Btu/ft². FA3-105-02 has the combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading for the room of ~~3.0~~2.7E+05 Btu/ft². FA3-105-03 has the combustible loading not expected to exceed 1.9E+03 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A and non-safety train.

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Fire Detection and Suppression Features

FA3-105-01 and FA3-105-03 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

FA3-105-02 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from wet-pipe automatic sprinkler system. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.112 FA3-106 FA3-106 Area

Figures 9A-11 shows the location of this fire area on the east PS/B. The FA3-106 provides access from the R/B to the train A and B essential chiller unit and pump room, the train A and B GTG auxiliary component rooms. The corridor has the combustible fire loading due to potential transient material that is not expected to exceed ~~6.95~~5E+01 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-106-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles

associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

~~A fire in this area has the potential to damage the following typical systems of safe shutdown function.~~

- ~~• B-Class 1E Power system~~
- ~~• B-Class 1E Battery System~~
- ~~• B-Safety Control SyStem~~

~~Since this fire area is separated from the Train A, C, and D areas by 3-hour fire-rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe shutdown.~~ A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

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Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in

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this area is not deemed credible of causing a radioactive release to the environment.

9A.3.113 FA3-108 C-Essential Chiller Unit & Pump Room

Figure 9A-11 shows the location of this fire area on the east side of the west PS/B. This fire area consists of a single fire zone designated as FA3-108-01. This room contains C-essential chilled water system equipment. There is sufficient combustible fire loading from the electrical cables, lube oil, and panels associated with the chilled water unit to result in a maximum anticipated fire loading of 3.4×10^4 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features providing at least 3-hour fire resistance.

The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA3-108-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-Essential Chilled Water system
- C-Essential Chiller Unit Area HVAC System
- C-Safety Contrl System
- C-ESWS

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Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.114 FA3-109 C-Class 1E GTG Room

Figure 9A-11 and 9A-12 show the location of this fire area on the east side of the west PS/B adjacent to the south portion of the R/B. This fire area consists of three individual fire zones, FA3-109-01, C-GTG Auxiliary Component room, FA3-109-02, C-GTG Fuel Pipng Area, and FA3-109-03 C-Class 1E GTG room. C-GTG Auxiliary Component room has combustible fire loading that is not expected to exceed $8.8\text{E}+02$ Btu/ft². FA3-109-02 zone has combustible loading not expected to exceed $2.73\text{E}+02$ Btu/ft². C-Class 1E GTG room has combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading of $2.52\text{E}+05$ Btu/ft².

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expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The sprinkler system within the room is designed to NFPA 13 and is seismically supported to prevent the sprinkler piping from falling on the safety-related equipment during a design basis earthquake. The manual fire hose are in an alternate area and can only discharge water by deliberate manual action. The fire suppression system is designed to contain the pressure of the water and sprinkler heads are designed to only discharge water if their thermal element indicated a fire condition. Should the sprinkler system inadvertently discharge, the gas turbine is protected by its enclosure. On this basis, there is little potential for an unintended actuation of the fire suppression system adversely affecting the operation of the plant.

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-GTG system
- C-Class 1E Power system
- C-Class 1E Battery System
- C-Essential Chiller Unit Area HVAC System
- C-Class 1E Battery Room HVAC System
- C-Essential Chilled Water System
- C-Safety Control System
- [C-CS/RHRS](#)
- [C-ESWS](#)
- [C-SIS](#)

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- D-SIS

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Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this area has the potential to damage the following system and safe-shutdown function.

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- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.115 FA3-110 D-Essential Chiller Unit & Pump Room

Figure 9A-11 shows the location of this fire area on the west side of the east PS/B. This fire area consists of a single fire zone designated as FA3-109-01. This room contains D-essential chilled water system equipment. There is sufficient combustible fire loading from the electrical cables, lube oil, and panels associated with the chilled water unit to result in a maximum anticipated fire loading of ~~3.1~~2.7E+04 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features providing at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-110-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

- D-ESWS

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Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.116 FA3-111 D-Class 1E GTG Room

Figures 9A-11 and 9A-12 show the location of this fire area on the east side of the west PS/B adjacent to the south portion of the R/B. This fire area consists of three individual fire zones, FA3-111-01, D-GTG Auxiliary Component room, FA3-111-02, D-GTG Fuel Piping Area, and FA3-111-03, D-Class 1E GTG room. D-GTG Auxiliary Component room has combustible fire loading that is not expected to exceed $8.8E+02$ Btu/ft². FA3-111-02 has combustible fire loading not expected to exceed $1.90E+03$ Btu/ft². FA3-111-03 D-Class 1E GTG room has combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading of $2.51E+05$ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-111-01, FA3-111-02 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

FA3-111-03 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from wet-pipe automatic sprinkler system. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is

significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-GTG system
- D-Class 1E Power system
- D-Class 1E Battery System
- D-Essential Chiller Unit Area HVAC System
- D-Class 1E Battery Room HVAC System
- D-Essential Chilled Water System
- D-Safety Control System
- D-CS/RHRS
- A-EFWS (T/D)
- D-EFWS (T/D)
- D-ESWS
- D-SIS

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Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.117 FA3-112 FA3-112 Area

Figure 9A-11 shows the location of this fire area on the west PS/B. The FA3-112 provides access from the R/B to the train C and D essential chiller unit and pump room, the train C and D GTG Auxiliary Component rooms. The corridor has the combustible fire loading due to potential transient material that is not expected to exceed $6.974E+01$ Btu/ft².

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controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-Class 1E Power system
- C-Class 1E Battery System
- C-Essential Chiller Unit Area HVAC System
- C-Essential Chilled Water System
- C-CS/RHRS
- C-SIS
- D-SIS

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Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

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Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.118 FA3-113 B-AAC GTG Room

Figures 9A-11 and 9A-12 show the location of this fire area on the west side of the west power source building. This fire area consists of three individual fire zones, FA3-113-01

B-AAC Power Source Starter Battery Room and FA3-113-02 B-AAC GTG room and FA3-113-03, B-AAC Fuel Pipng Area. The FA3-113-01 zone has the combustibile fire loading that is not expected to exceed $1.21E+04$ Btu/ft². FA3-113-02 has the combustibile loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading for the room of $3.026E+05$ Btu/ft². FA3-113-03 has combustibile loading not expected exceed $1.9E+03$ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train C and non-safety train.

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Fire Detection and Suppression Features

FA3-113-01 and FA3-113-03 are provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

FA3-113-02 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from wet-pipe automatic sprinkler system. Secondary suppression is provided from manual fire hose station.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The potential fire loading from the gas turbine package is addressed with a wet-pipe sprinkler system as recommended by code and regulatory guidance. The fire area has substantial concrete reinforced walls that are designed to seismic category I criteria and are rated for a minimum of 3-hour fire resistance. Additional fire suppression capability is provided with fire hose streams and portable fire extinguishers. In addition both zones of the area are provided with automatic fire detection and manual alarm notification as backup. The combination of structural confinement, automatic fire suppression, automatic

9A.3.119 FA3-114 Cable Tray Space

Figure 9A-12 shows the location of this fire area on the west PS/B. This fire area consists of a single fire zone designated as FA3-114-01. This room is used for cable tray routing within the PS/B. The high voltage, low voltage, control and instrumentation cables routed through the fire area are non-divisional cables associated with main turbine operation. Overall fire loading within the area is not expected to exceed ~~4.09.5E+054~~ Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with non-safety train.

Fire Detection and Suppression Features

FA3-114-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire.

The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Class 1E Battery
- B-Class 1E Power system

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.122 FA3-117 A-Class 1E Battery Charger Room

Figure 9A-11 shows the location of this fire area on the east side of the east PS/B. This fire area consists of a single fire zone designated as FA3-117-01. This room contains the train A DC control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~5.74.0~~5.74.0E+04 Btu/ft².

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significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following system and safe-shutdown function..

- A,B-Class 1E Power system
- A-EFWS (T/D)

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Since this area is separated from C and D Class 1E Power System by 3-hour fire barriers, two train equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

9A.3.123 FA3-118 B-Class 1E Battery Charger Room

Figure 9A-11 shows the location of this fire area on the east side of the east PS/B. This fire area consists of a single fire zone designated as FA3-118-01. This room contains the train B DC control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~6.04~~4.5E+04 Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-118-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- B-Class 1E Power system
- [B-CS/RHRS](#)
- [B-SIS](#)

MIC-03-09-
00015

- A-SIS

MIC-03-09-00015

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this area has the potential to damage the following system and safe-shutdown function.

MIC-03-09-00015

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

9A.3.124 FA3-119 Spare Battery Charger-1 Room

Figure 9A-11 shows the location of this fire area on the middle of the east PS/B. This fire area consists of a single fire zone designated as FA3-119-01. This room contains the train N DC control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~6-65.3~~65.3E+04 Btu/ft².

MIC-03-09-00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A

Fire Detection and Suppression Features

FA3-119-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. All fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- A-Class 1E Power system
- [A-CS/RHR](#)
- [A-EFWS \(T/D\)](#)
- [D-EFWS \(T/D\)](#)

MIC-03-09-
00015

- [A-SIS](#)

MIC-03-09-00015

Since this fire area is separated from the Train B, C and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

9A.3.125 FA3-120 C-Class 1E Battery Room

Figure 9A-11 shows the location of this fire area on the west side of west PS/B. This fire area consists of a single fire zone designated as FA3-120-01. This room contains the train C batteries. The fire loading due to this combustible content is not expected to exceed $1.4E+05$ Btu/ft².

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA3-120-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire

9A.3.126 FA3-121 D-Class 1E Battery Room

Figure 9A-11 shows the location of this fire area on the west side of west PS/B. This fire area consists of a single fire zone designated as FA3-121-01. This room contains the train D batteries. The fire loading due to this combustible content is not expected to exceed $1.43E+05$ Btu/ft².

MIC-03-09-
00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-121-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is heavy but not comprised of highly combustible materials and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-Class 1E Battery
- D-Class 1E Power system

Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-
12.04-11 S03

9A.3.127 FA3-122 C-Class 1E Battery Charger Room

Figure 9A-11 shows the location of this fire area on the west side of the west PS/B. This fire area consists of a single fire zone designated as FA3-122-01. This room contains the train C DC control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~6.03.3~~6.03.3E+04 Btu/ft².

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00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train C.

- C-Class 1E Power system

Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-
12.04-11 S03

9A.3.128 FA3-123 D-Class 1E Battery Charger Room

Figure 9A-11 shows the location of this fire area on the west side of the west PS/B. This fire area consists of a single fire zone designated as FA3-123-01. This room contains the train D dc control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~5.74.4~~5.74.4E+04 Btu/ft².

MIC-03-09-
00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-123-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire

confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C,D-Class 1E Power system
- [D-CS/RHR](#)
- [D-EFWS \(T/D\)](#)
- [A-EFWS \(T/D\)](#)
- [D-SIS](#)

MIC-03-09-
00015

Since this area is separated from A and B Class 1E Power System by 3-hour fire barriers, two train equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-
12.04-11 S03

9A.3.129 FA3-124 Spare Battery Charger-2 Room

Figure 9A-11 shows the location of this fire area on the middle of the west PS/B. This fire area consists of a single fire zone designated as FA3-124-01. This room contains the train N DC control center, inverter and transformer (battery charger) electrical panel, instruments and controls, with low voltage and control electrical cables associated with battery charging. The fire loading due to this combustible content is not expected to exceed ~~6-63.8~~63.8E+04 Btu/ft².

MIC-03-09-
00015

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-124-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. All fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- D-Class 1E Power system
- [D-CS/RHR](#)
- [D-EFWS \(T/D\)](#)
- [A-EFWS \(T/D\)](#)
- [D-SIS](#)

MIC-03-09-00015

Since this fire area is separated from the Train A, B and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

9A.3.130 FA3-125 A-AAC Selector Circuit Panel Room

Figures 9A-11 shows the location of this fire area on the west side of the east PS/B adjacent to the south portion of the R/B. This fire area consists of the single fire zone, FA3-125-01, A-AAC switching Circuit Panel Room. This room has combustible fire loading that is not expected to exceed ~~4.73.6~~4.73.6E+04 Btu/ft².

MIC-03-09-
00015

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-125-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- B-Class 1E Power system
- B-CS/RHR
- B-SIS
- A-SIS

MIC-03-09-00015

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

MIC-03-09-00015

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

RCOL2_12.03-12.04-11 S03

9A.3.131 FA3-126 B-AAC Selector Circuit Panel Room

Figures 9A-11 shows the location of this fire area on the west side of the east PS/B adjacent to the south portion of the R/B. This fire area consists of the single fire zone, FA3-126-01, B-AAC switching Circuit Panel Room. This room has combustible fire loading that is not expected to exceed ~~4.73.6~~4.73.6E+04 Btu/ft².

MIC-03-09-
00015

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA3-126-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to code (NFPA 14) and unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- C-Class 1E Power system
- C-CS/RHR
- C-SIS
- D-SIS

MIC-03-09-00015

Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

MIC-03-09-00015

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. ~~Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content.~~ As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

RCOL2_12.03-12.04-11 S03

9A.3.132 **FA3-127** **FA3-127 Stairwell**MIC-03-09-
00015

Figures 9A-11 show the location of this fire area which is the stairwell located on the east PS/B. The stairwell fire area is comprised of a single fire zone designated as fire zone FA3-127-01. The stairwell is constructed of reinforced concrete walls which result in a fire rating of 3 hours or higher which exceeds NFPA 101 requirements for a 2-hour fire rating. The openings to the stairwell are protected by doors having a 3-hour fire rating which also exceed NFPA 101 requirement for doors rated at 1 ½ hours. This fire area contains low voltage and control electrical cables. The fire loading due to this combustible content is not expected to exceed 3.7E+02 Btu/ft².

This area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-127-01 is provided with automatic smoke detection, and a manual fire alarm pull station. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

Fire doors installed in accordance with NFPA 80 help to reduce the introduction of smoke into the stairwell from adjacent fire areas. Should additional smoke removal capacity be required, the plant fire brigade can assist the smoke removal for the stairwell utilizing portable equipment.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided by manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since cables is located in overhead areas.

Safe Shutdown Evaluation

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A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Class 1E Power system
- B-CS/RHR
- B-SIS
- A-SIS

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.133 FA3-128 FA3-128 Piping Room

Figures 9A-11 show the location of this fire area which is the piping room located on the east PS/B. This fire area is comprised of a single fire zone designated as fire zone FA3-128-01. This room is constructed of reinforced concrete walls which result in a fire rating of 3 hours or higher which exceeds NFPA 101 requirements for a 2-hour fire rating. The openings to this room are protected by doors having a 3-hour fire rating which also exceed NFPA 101 requirement for doors rated at 1 ½ hours. General fire loading within this fire area is minimal and is not expected to exceed 1.2E+02 Btu/ft² as a result of transient materials that may pass through this room.

This area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-128-01 is provided with manual fire alarm pull station. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any smoke generated within the tunnel would be confined to this area. The fire brigade could provide ventilation of any smoke from the tunnel using portable equipment.

Fire Protection Adequacy Evaluation

A fire is not expected to occur within this area since there is minimal fire load to support it. Should a fire occur, it would not propagate outside the fire area boundaries.

Fire Protection System Integrity

Since there are no automatic or manual system within this area, the fire protection system integrity for this area is assured by the significant protection provided by the structural fire protection provided.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-ESWS
- B-Essential Chilled Water System
- B-Essential Chiller Unit Area HVACS

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.134 FA3-129 FA3-129 Corridor

Figures 9A-11 shows the location of this fire area on the east PS/B. The FA3-129 provides access from the stairwell to the train A, B class 1E battery rooms and battery

charger rooms, spare battery room 1 and A-AAC-selector circuit panel rooms. The corridor contains high and low voltage electrical cables associated with battery and AAAC Gas Turbine Generator. The fire loading due to this combustible content is not expected to exceed 8.9E+01 Btu/ft².

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The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA3-129-01 is provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is

seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

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Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-Class 1E Power system
- A-CS/RHR
- A-SIS
- A-EFWS(T/D)
- D-EFWS(T/D)

Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.135 FA3-130 FA3-130 Corridor

Figures 9A-12 shows the location of this fire area on the east PS/B. The FA3-130 provides access from the R/B to the train A and B class 1E GTG and gas turbine control board room, the A-AAC GTG rooms. The corridor contains low voltage and control electrical cables associated with B Class 1E battery and B-Class 1E Gas Turbine Generator. The fire loading due to this combustible content is not expected to exceed $1.0E+02$ Btu/ft².

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-130-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels, controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Class 1E Power system
- B- GTG System
- B-ESWS
- B-CS/RHR
- B-SIS
- A-SIS
- B-Essential Chilled Water System
- B-Essential Chiller Unit HVAC System
- B-Class 1E Battery Room HVAC System

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.136 FA3-131 FA3-131 Corridor

Figure 9A-11 shows the location of this fire area on the west PS/B. The FA3-131 provides access from the PS/B B1MF corridor to the D-Class 1E battery charger room, the B-AAC Power Source Starter Battery room and Spare Battery Charger-2 room. The corridor contains low voltage and control electrical cables. The fire loading due to this combustible content is not expected to exceed 3.7E+02 Btu/ft².

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

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The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-131-01 is provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

The fire area is formed with 3-hour fire rated barriers whose penetrations and openings that are compatible with the 3-hour fire rating. This provides confinement for any smoke generated within the area and prevents smoke intrusion into the area from adjacent areas. Should smoke removal be required from the area, the plant fire brigade has the necessary portable equipment to accomplish this.

Fire Protection Adequacy Evaluation

The fire area is constructed with concrete walls in excess of 8 inches thick and provided with a fire door to the room to provide complete isolation of the room. All openings and penetrations into the fire area are protected to provide complete isolation in the event of a fire. The major fire threat to this room is from the cables and the transient combustibles associated with maintenance activities during equipment outages. The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations.

The area is provided with automatic fire detection which alarms upon high smoke concentration and summons plant fire brigade. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the fire area. On this basis, there is adequate fire protection provided for this fire area.

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. The fire protection piping is seismically supported so that any failure will not cause the piping to impact any safety-related equipment. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required to operate a hose station valve and release water. In the event of a fire, the equipment within the area is protected from significant water intrusion since wiring is located in overhead areas and the small amount of panels.

controls and instrumentation are located off the floor by a distance that allows for some water buildup on the floor.

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Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-Class 1E Power system
- D-CS/RHR
- D-SIS
- D-EFWS (T/D)
- A-EFWS (T/D)

Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.137 FA3-132 A-Class 1E MOV Inverter Room

Figures 9A-11 shows the location of this fire area on the east PS/B. The room, which is designated as a single fire zone, FA3-132-01, contains the A-Class 1E MOV Inverter 1.2 and A-Class 1E MOV Motor CONT Center 1.2. The fire loading due to this combustible content is not expected to exceed 1.0E+05 Btu/ft².

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating.

The area is identified as being associated with safety train A.

Fire Detection and Suppression Features

FA3-132-01 is provided with automatic smoke detection, and a manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided by manual fire hose stations. Secondary suppression is provided by portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- A-Class 1E Power system
- A-CS/RHR
- A-SIS
- A-EFWS(T/D)

- D-EFWS(T/D)

Since this fire area is separated from the Train B, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.138 FA3-133 B-Class 1E MOV Inverter Room

Figures 9A-11 shows the location of this fire area on the east PS/B. The room, which is designated as a single fire zone, FA3-133-01, contains the B-Class 1E MOV Inverter and B-Class 1E MOV Motor CONT Center. The fire loading due to this combustible content is not expected to exceed 4.0E+04 Btu/ft².

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating.

The area is identified as being associated with safety train B.

Fire Detection and Suppression Features

FA3-133-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

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The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

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The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- B-Class 1E Power system
- B-CS/RHR
- B-SIS
- A-SIS

Since this fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- A-Main Steam Relief Valve (train-B)
- B-Main Steam Relief Valve (train-B)

Since this area is separated from C and D Main Steam Relief Valves (train-C) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-

shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

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Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.139 FA3-134 C-Class 1E MOV Inverter Room

Figures 9A-11 shows the location of this fire area on the west PS/B. The room, which is designated as a single fire zone, FA3-134-01, contains the C-Class 1E MOV Inverter and C-Class 1E MOV Motor CONT Center. The fire loading due to this combustible content is not expected to exceed 4.0E+04 Btu/ft².

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating.

The area is identified as being associated with safety train C.

Fire Detection and Suppression Features

FA3-134-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the expected fire hazards within the compartment during normal operation and the maximum expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

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Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- C-Class 1E Power system
- C-CS/RHR
- C-SIS
- D-SIS

Since this fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

A fire in this fire area has the potential to damage the following system and safe-shutdown function.

- C-Main Steam Relief Valve (train-C)
- D-Main Steam Relief Valve (train-C)

Since this area is separated from A and B Main Steam Relief Valves (train-B) by 3-hour fire barriers, two valves of equipment in other areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of achieving safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

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9A.3.140 FA3-135 D-Class 1E MOV Inverter Room

Figures 9A-11 shows the location of this fire area on the west PS/B. The room, which is designated as a single fire zone, FA3-135-01, contains the D-Class 1E MOV Inverter 1, and D-Class 1E MOV Motor CONT Center 1.2. The fire loading due to this combustible content is not expected to exceed 9.5E+04 Btu/ft².

The borders of this fire area are constructed using construction techniques and material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features that provide at least 3-hour ASTM E-814 fire rating.

The area is identified as being associated with safety train D.

Fire Detection and Suppression Features

FA3-135-01 is provided with automatic smoke detection, and manual fire alarm pull station is installed as secondary detection. Primary fire suppression is provided from manual fire hose stations. Secondary suppression is provided from portable fire extinguishers.

Smoke Control Features

Any HVAC ductwork passing into the area is provided with automatic closing fire dampers at fire area boundaries as required by NFPA 90A. Smoke migration into the area is mitigated by appropriately sealed penetrations and openings of the fire area boundaries. Smoke removal as required due to fire within the area can be accomplished by the plant fire brigade utilizing portable fans and flexible ducting.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors and protected penetrations and openings are provided for fire confinement. HVAC ductwork passing into this area is equipped with fire dampers in accordance with the guidance of NFPA 90A.

The combustible loading in this area is light and a fire of sufficient size and intensity to compromise the fire barrier boundaries is not deemed credible.

The fire protection system for this room is designed in accordance with NFPA 72 and 14, and is the combination of smoke detectors and manual hose stations. Based on the

expected fire during equipment maintenance, the 3-hour fire rated boundaries of the compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

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Fire Protection System Integrity

The fire protection capability for this area is provided from manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 requirements and is unlikely to release water except after extreme seismic events. Since this is a safety-related area, all fire protection system piping is seismically supported to prevent its falling on safety-related equipment during an event and causing damage. Unintended operation of the fire suppression activity is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safe-shutdown function.

- D-Class 1E Power system
- D-CS/RHR
- D-SIS
- D-EFWS(T/D)
- A-EFWS(T/D)

Since this fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers, two safety trains of equipment in other fire areas can achieve and maintain safe-shutdown from full power, and the fire in this fire area, therefore, will not adversely impact the ability of safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in the PS/B which is not a radiological area. Radiological material is not allowed within this building area by administrative controls. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.141 FA4-101 Auxiliary Building

The A/B is classified as one fire area consisting of twenty ~~three~~four fire zones which do not contain any safety train cables, equipment, or functions associated with safe-shutdown. The A/B layout and associated fire zones is shown in Figures 9A-13 through

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9A-17. The following listing provides the individual designation, number of the fire zone, and maximum expected fire load for each A/B fire zone.

Fire Zone No.	Designation	Fire Load (Btu/ft ²)	
FA4-101-01	Auxiliary Building B1F Floor	3.40E+04	MIC-03-09-00015
FA4-101-02	FA4-101-02 Stairwell 4F (B1F ~ 3F)	6.29.3E+02	
FA4-101-03	Boric Acid Tank Room	7.78.0E+02	
FA4-101-04	Auxiliary Building 1F Floor	3.21E+04	
FA4-101-06	Non-Class 1E Electrical Room (FA4-101-06)	3.31E+05	
FA4-101-07	Computer Room	8.2E+03	
FA4-101-08	Non-Class 1E I&C Room (FA4-101-08)	3.53E+04	MIC-03-09-00015
FA4-101-09	Radwaste Control Room	8.95.2E+04	
FA4-101-10	FA4-101-10 Corridor	2.43E+04	
FA4-101-11	Non-Class 1E I&C Room (FA4-101-11)	3.3E+04	
FA4-101-12	Non-Class 1E I&C Room (FA4-101-12)	3.89E+04	MIC-03-09-00015
FA4-101-13	Non-Class 1E Electrical Room (FA4-101-13)	2.6E+04	
FA4-101-14	Communication System Equipment Room	9.81.0E+034	MIC-03-09-00015
FA4-101-15	Resin-Fill Tank Room FA4-101-15 Corridor	2.97E+04	
FA4-101-16	Non-Class 1E Battery Room	9.08.7E+04	
FA4-101-17	Boric Acid Batching Tank Room SG Blowdown Cation Bed & Mixed Bed Demineralizers	5.86.0E+02	
FA4-101-18	HVAC Equipment Room (FA4-101-18)	2.98E+04	
FA4-101-19	TSC Emergency Filtration Unit & Fan Room	3.9E+04	
FA4-101-20	HVAC Equipment Room (FA4-101-20)	2.89E+04	MIC-03-09-00015
FA4-101-21	C/V Low Volume Purge Exhaust Filtration Unit Room	4.08E+04	
FA4-101-22	Hold Up Tank Room	2.93.0E+02	
FA4-101-23	Instrument Maintenance Shop (Cold)	5.03.6E+01	
FA4-101-24	Auxiliary Building EL.76'-5" Floor	2.4E+01	
<u>FA4-101-25</u>	<u>Auxiliary Building Equipment Room</u>	<u>6.51.1E+056</u>	MIC-03-09-00015

The borders of this fire area are constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations into this fire area are protected with fire protection features provide at least 3-hour fire resistance.

The area is identified as being associated with non-safety train.

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compartment are more than sufficient to contain any unsuppressed fire that can be expected to occur within the compartment. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The fire protection capability for this area is provided from automatic sprinkler systems and manual hose streams applied by the plant fire brigade. The sprinkler system is designed to code (NFPA 13), the standpipe is designed to code (NFPA 14). These systems have high integrity to guard against inadvertent discharge. Should a fire suppression system discharge, no safety-related equipment would be impacted and no radiological release would be incurred. In the event of a fire, electrical cables, equipment, and instruments in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels. The air aspirating fire alarm system is designed for industrial environments.

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Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

The A/B is used to process radwaste resulting from plant operation, and from refueling and maintenance outages. As such, a fire within the Radwaste areas has the potential to release radioactive material. Smoke release from a fire within the A/B is via a filtered exhaust path that will remove radiological material prior to release. Any fire suppression system water discharge would be contained within the A/B and could be processed prior to release to the environment. The A/B is a separate fire area with complete 3-hour fire separation from adjacent safety-related areas. The reinforced concrete construction of most Radwaste handling areas, the fire barrier confinement, automatic fire suppression, and filtered exhaust path provide defense-in-depth assurance that a fire within the A/B would not result in adverse radioactive release to the environment.

9A.3.142 FA5-101 Access Control Building

The FA5-101 AC/B is located adjacent to the west side of the A/B. The AC/B is a three story building providing plant support functions such as security access control to the plant, hot and cold locker rooms for plant personnel, health physics office, radio chemistry laboratory, and miscellaneous support activities. The AC/B is classified as one fire area consisting of two fire zones which do not contain any safety train cables, equipment, or functions associated with safe-shutdown. The maximum fire loading in FA5-101-01 is $2.9E+04$ Btu/ft² and the maximum fire loading in FA5-101-02 is $2.7E+04$ Btu/ft²

The border of this fire area with the adjacent A/B is constructed using reinforced concrete and other material which results in fire resistance that provides at least a 3-hour ASTM E-119 fire rating. Openings and penetrations with this border wall are protected with fire

from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has no potential to damage the ability of safe-shutdown function, because they are not installed in this fire area. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

The AC/B serves as a controlled access to the radiological areas of the plant. Radiological materials are not contained within the AC/B. The AC/B is separated from the adjacent A/B containing radiological materials by 3-hour fire rated boundaries. The fire load in the AC/B is very low, automatic wet-pipe sprinkler protection is provided, and equipment to support manual fire suppression is provided. These defense-in-depth measures provide adequate assurance that a fire occurrence within the AC/B would not lead to a radioactive release.

9A.3.143 FA6-101 Turbine Building

Figures 9A-20 through 9A-26 show the twenty three fire zones associated with the T/B fire area, FA6-101. The T/B contains no equipment classified as safety-related or important to safety and is considered to be one fire area throughout to isolate the building from the adjacent R/B and PS/B which contain safety-related equipment. The following listing provides the individual designation, number of the fire zones, and maximum expected fire load for each T/B fire zone.

This area is identified as being associated with non-safety train.

Fire Zone No.	Designation	Fire Load (Btu/ft ²)	
FA6-101-01	Turbine Building B1F Floor	2.53 3.1E+04	MIC-03-09-00015
FA6-101-02	Turbine Building 1F Floor	2.8E+04	
FA6-101-03	Electric Room (1F)	8.4 2.7E+04	MIC-03-09-00015
FA6-101-04	FA6-101-04 Zone	2.75E+04	
FA6-101-05	FA6-101-05 Stairwell	2.7E+02	
FA6-101-06	FA6-101-06 Stairwell	2.1E+02	
FA6-101-07	FA6-101-07 E.V Shaft	6.2E+02	
FA6-101-08	FA6-101-08 Stairwell	3.7E+02	
FA6-101-09	FA6-101-09 Stairwell	2.3E+02	
FA6-101-11	FA6-101-11 Stairwell	1.9E+02	
FA6-101-12	Sampling Room	4.4E+01	
FA6-101-13	Turbine Building 2F Floor	2.7E+04	
FA6-101-14	Electrical Room (2F)	7.7 2.5E+04	MIC-03-09-00015

9A.3.148 FA7-401 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the East PS/B. This fire area consists of the single fire zone, FA7-401-01, A-Class 1E GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This vault accommodates the GTG fuel storage tank with a capacity of ~~119~~140,000 gallons. Also, in this vault are the fuel oil transfer pumps and associated equipment. The tunnel contains the fuel oil pipe, sprinkler piping and power, control and instrumentation cables associated with all the equipment in the vault. The access tunnel is located perpendicular to and above the ESW Piping Tunnel located between the PS/B and the vault. Entrance to the tunnel is through a 3-hour fire rated door located at the wall of PS/B.

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Fire Detection and Suppression Features

FA7-401-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression, and vapor and liquid detection system is installed as primary automatic fire detection ~~and a manual fire alarm pull station is installed as primary manual fire detection~~. Secondary suppression is provided by a manual hose station and a portable fire extinguisher. Secondary detection is provided by a manual fire alarm pull station. Vapor and liquid detection systems are provided in accordance with NFPA 30. They alarm locally and to the MCR.

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Smoke Control Features

Smoke removal as required due to fire within the area can be accomplished by the existing ventilation system for the power source fuel storage vault

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors. 3-hour fire-rated penetration seals are provided for all penetrations into the access tunnel and vault. The ventilation supply and exhaust openings contain 3-hour fire rated dampers.

Fire suppression is provided by a dry-pipe sprinkler system in accordance with NFPA 13 and regulatory guidance. The fire area has substantial concrete reinforced walls that are designed to seismic category I criteria. They provide more than the required minimum 3-hour fire resistance rating. Additional fire suppression capability is provided by fire hose streams and portable fire extinguishers. In addition, the area is provided with a manual fire alarm pull station as backup. The combination of structural confinement with fire rated barriers, automatic fire suppression system, the manual fire hose station, automatic fire detection system and the manual fire alarm pull station as a backup provides a defense-in-depth approach toward assuring the fire protection adequacy of this fire area and preventing the spread of a fire outside this fire area.

9A.3.149 FA7-402 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the East PS/B. This fire area consists of the single fire zone, FA7-402-01, B-Class 1E GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This vault accommodates the GTG fuel tank with a capacity of ~~449~~140,000 gallons. Also, in this vault are the fuel oil transfer pumps and associated equipment. The tunnel contains the fuel oil pipe, sprinkler piping and power, control and instrumentation cables associated with all the equipment in the vault. The access tunnel is located perpendicular to and above the ESW Piping Tunnel located between the PS/B and the vault. Entrance to the tunnel is through a 3-hour fire rated door located at the wall of PS/B.

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Fire Detection and Suppression Features

FA7-402-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression, and vapor and liquid detection system is installed as primary automatic fire detection. ~~and a manual fire alarm pull station is installed as primary manual fire detection.~~ Secondary suppression is provided by a manual hose station and a portable fire extinguisher. Secondary detection is provided by a manual fire alarm pull station. Vapor and liquid detection systems are provided in accordance with NFPA 30. They alarm locally and to the MCR.

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Smoke Control Features

Smoke removal as required due to fire within the area can be accomplished by the existing ventilation system for the power source fuel storage vault.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors. 3-hour fire-rated penetration seals are provided for all penetration into the access tunnel and vault. The ventilation supply and exhaust openings contain 3-hour fire rated dampers.

Fire suppression is provided by a dry-pipe sprinkler system in accordance with NFPA 13 and regulatory guidance. The fire area has substantial concrete reinforced walls that are designed to seismic category I criteria. They provide more than the required minimum 3-hour fire resistance rating. Additional fire suppression capability is provided by fire hose streams and portable fire extinguishers. In addition the area is provided with a manual fire alarm pull station as backup. The combination of structural confinement with fire rated barriers, automatic fire suppression system, the manual fire hose station, automatic fire detection system and the manual fire alarm pull station as a backup provides a defense-in-depth approach toward assuring the fire protection adequacy of this fire area and preventing the spread of a fire outside this fire area.

The fire suppression system for this vault/tunnel is designed in accordance with NFPA 13. The manual hose station is also provided and designed in accordance with NFPA 14. On this basis, there is adequate fire protection provided for this compartment (fire area).

Fire Protection System Integrity

The dry-pipe sprinkler system within the room is designed to NFPA 13 and is seismically supported to ensure that the system maintains its pressure boundary integrity and does not fall on the safety-related equipment during a safe shutdown earthquake (SSE). The manual fire hose station can only discharge water by deliberate manual action. The dry-pipe sprinkler system is designed to discharge water only when the thermal element of the sprinkler reaches its actuation temperature, which would indicate a fire condition. On this basis, there is little potential for an unintended actuation of the fire suppression system adversely affecting the operation of the plant.

The manual fire protection capability for this area is provided by manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 and is unlikely to release water without an operator manual action. Since this is a safety-related area, all fire hose standpipe system piping is seismically supported to maintain its pressure boundary integrity and not fall on safety-related equipment during a SSE causing unacceptable damage. Unintended operation of the fire hose standpipe system is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- B-Class 1E Power system (Fuel Oil)

This fire area is separated from the Train A, C, and D areas by 3-hour fire rated barriers. This separation will ensure that other safety trains will not be affected by a fire originating in this area and the remaining safety trains of equipment in other fire areas can achieve and maintain safe-shutdown of the plant. Therefore, a fire originating in one of the GTG fuel oil storage vaults will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in non-radiological area. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.150 FA7-403 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the East PS/B. This fire area consists of the single fire zone, FA7-403-01, A-AAC GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This vault accommodates GTG fuel storage tank with a capacity of ~~449~~140,000 gallons. Also, |

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designed to discharge water only when the thermal element of the sprinkler reaches its actuation temperature, which would indicate a fire condition. On this basis, there is little potential for an unintended actuation of the fire suppression system adversely affecting the operation of the plant.

The manual fire protection capability for this area is provided by manual hose streams applied by the plant fire brigade. The standpipe is designed to NFPA 14 and unlikely to release water without an operator manual action. Unintended operation of the fire hose standpipe system is not expected since deliberate manual activation is required. In the event of a fire, electrical cables and equipment in the area would be protected from significant water intrusion since they are installed above the floor elevation above expected flooding levels.

Safe Shutdown Evaluation

A fire in this area will not impact any safe-shutdown functions, and the equipment in four safety trains will remain unaffected by the fire. The fire in this fire area, therefore, will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in non-radiological area. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.151 FA7-404 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the West PS/B. This fire area consists of the single fire zone, FA7-404-01, C-Class 1E GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This vault accommodates GTG fuel storage tank with a capacity of ~~449~~140,000 gallons. Also, in this vault are the fuel oil transfer pumps and associated equipment. The tunnel contains the fuel oil pipe, sprinkler piping and power, control and instrumentation cables associated with all the equipment in the vault. The access tunnel is located perpendicular to and above the ESW Piping Tunnel located between the PS/B and the vault. Entrance to the tunnel is through a 3-hour fire rated door located at the wall of PS/B.

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Fire Detection and Suppression Features

FA7-404-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression, and vapor and liquid detection system is installed as primary automatic fire detection. ~~and a manual fire alarm pull station is installed as primary manual fire detection.~~ Secondary suppression is provided by a manual hose station and a portable fire extinguisher. Secondary detection is provided by a manual fire alarm pull station. Vapor and liquid detection systems are provided in accordance with NFPA 30. They alarm locally and to the MCR.

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Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical system of safe-shutdown function.

- C-Class 1E Power system (Fuel Oil)

This fire area is separated from the Train A, B, and D areas by 3-hour fire rated barriers. This separation will ensure that other safety trains will not be affected by a fire originating in this area and the remaining safety trains of equipment in other fire areas can achieve and maintain safe-shutdown of the plant. Therefore, a fire originating in one of the GTG fuel oil storage vaults will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in non-radiological area. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.152 FA7-405 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the West PS/B. This fire area consists of the single fire zone, FA7-405-01, D-Class 1E GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This vault accommodates the GTG fuel storage tank with a capacity of ~~149~~140,000 gallons. Also, in this vault are the fuel oil transfer pumps and associated equipment. The tunnel contains the fuel oil pipe, sprinkler piping and power, control and instrumentation cables associated with all the equipment in the vault. The access tunnel is located perpendicular to and above the ESW Piping Tunnel located between the PS/B and the vault. Entrance to the tunnel is through a 3-hour fire rated door located at the wall of PS/B.

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Fire Detection and Suppression Features

FA7-405-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression and vapor and liquid detection system is installed as primary automatic fire detection. ~~and a manual fire alarm pull station is installed as primary manual fire detection.~~ Secondary suppression is provided by a manual hose station and a portable fire extinguisher. Secondary detection is provided by a manual fire alarm pull station. Vapor and liquid detection systems are provided in accordance with NFPA 30. They alarm locally and to the MCR.

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Smoke Control Features

Smoke removal as required due to fire within the area can be accomplished by the existing ventilation system for the power source fuel storage vault.

This fire area is separated from the Train A, B, and C areas by 3-hour fire rated barriers. This separation will ensure that other safety trains will not be affected by a fire originating in this area and the remaining safety trains of equipment in other fire areas can achieve and maintain safe-shutdown of the plant. Therefore, a fire originating in one of the GTG fuel oil storage vaults will not adversely impact the ability to achieve and maintain safe-shutdown.

Radioactive Release to Environment Evaluation

This area is located in non-radiological area. There are no piping systems in the area that could contain fluids with radiological content. As such, a fire in this area is not deemed credible of causing a radioactive release to the environment.

9A.3.153 FA7-406 Power Source Fuel Storage Vault

Figure 9A-27 shows the location of this fire area adjacent to the south portion of the West PS/B. This fire area consists of the single fire zone, FA7-406-01, B-AAC GTG Fuel Storage Vault and a dedicated access tunnel that connects the vault to the PS/B. The access tunnel also serves as a pipe and cable chase from the PS/B to the vault. This room accommodates the GTG fuel storage tank with a capacity of ~~419~~140,000 gallons. Also, in this vault are the fuel oil transfer pumps and associated equipment. The tunnel contains the fuel oil pipe, sprinkler piping and power, control and instrumentation cables associated with all the equipment in the vault. The access tunnel is located perpendicular to and above the ESW Piping Tunnel located between the PS/B and the vault. Entrance to the tunnel is through a 3-hour fire rated door located at the wall of PS/B.

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Fire Detection and Suppression Features

FA7-406-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression, and vapor and liquid detection system is installed as primary automatic fire detection. ~~and a manual fire alarm pull station is installed as primary manual detection.~~ Secondary suppression is provided by a manual hose station and a portable fire extinguisher. Secondary detection is provided by a manual fire alarm pull station. Vapor and liquid detection systems are provided in accordance with NFPA 30. They alarm locally and to the MCR.

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Smoke Control Features

Smoke removal as required due to fire within the area can be accomplished by the existing ventilation system for the fuel storage vault.

Fire Protection Adequacy Evaluation

The fire area boundaries are constructed with concrete walls in excess of 8 inches thick and 3-hour rated fire doors. 3-hour fire-rated penetration seals are provided for all penetrations into the vault. The ventilation supply and exhaust openings contain 3-hour fire rated dampers.

Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 4 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	AD	FA2-127	FA2-127 Area	FA2-127-01	B1F Corridor
R/B	AD	FA2-127		FA2-127-02	Piping Room
R/B	AD	FA2-127		FA2-127-03	FA2-127-03 B1MF Corridor
R/B	AD	FA2-127		FA2-127-04	Piping Room for Charging Pump
R/B	AD	FA2-127		FA2-127-05	Refueling Water Recirculation Pump Room
R/B	ADN	FA2-127		FA2-127-06	Seal Water Hx Room
R/B	AD	FA2-127		FA2-127-07	FA2-127-07 Corridor
R/B	AD	FA2-127		FA2-127-08	FA2-127-08 Piping Room
R/B	D	FA2-128		B-Spent Fuel Pit Pump Room	FA2-128-01
R/B	D	FA2-128	FA2-128-02		FA2-128-02 Corridor
R/B	D	FA2-128	FA2-128-03		B-Spent Fuel Pit Pump Room
R/B	D	FA2-128	FA2-128-04		B-Spent Fuel Pit Hx Room
R/B	D	FA2-129	B R/B Sump Tank Room	FA2-129-01	B R/B Sump Tank Room
R/B	D	FA2-130	FA2-130 Area	FA2-130-01	FA2-130-01 Corridor
R/B	B	FA2-151	B-RHR Piping Room Area	FA2-151-01	B-RHR Piping Room
R/B	B	FA2-151		FA2-151-02	B-Safeguard Component Area AHU Room
R/B	B	FA2-151		FA2-151-03	B-CS/RHR Hx Room
R/B	B	FA2-151		FA2-151-04	FA2-151-04 Corridor
R/B	B	FA2-151		FA2-151-05	FA2-151-05 Zone
R/B	B	FA2-151		FA2-151-06	R/B 2F B-Piping Penetration Area (FA2-151-06)

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 6 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	B	FA2-201	FA2-201 Corridor	FA2-201-01	FA2-201-01 Corridor
R/B	A	FA2-202	A-Class 1E Electrical Room	FA2-202-01	A-Class 1E Electrical Room
R/B	B	FA2-203	B-Class 1E Electrical Room	FA2-203-01	B-Class 1E Electrical Room
R/B	C	FA2-204	C-Class 1E Electrical Room	FA2-204-01	C-Class 1E Electrical Room
R/B	D	FA2-205	D-Class 1E Electrical Room	FA2-205-01	D-Class 1E Electrical Room
R/B	C	FA2-206	FA2-206 Corridor	FA2-206-01	FA2-206-01 Corridor
R/B	N	FA2-207	FA2-207 Buttress Shaft	FA2-207-01	FA2-207-01 Buttress Shaft (east side)
R/B	N	FA2-208	FA2-208 Buttress Shaft	FA2-208-01	FA2-208-01 Buttress Shaft (west side)
R/B	A	FA2-209	A-Spent Fuel Pit Pump Room	FA2-209-01	A-Spent Fuel Pit Hx Room
R/B	A	FA2-209		FA2-209-02	A-Spent Fuel Pit Pump Room
R/B	A	FA2-209		FA2-209-03	FA2-209-03 Corridor
R/B	A	FA2-209		FA2-209-04	FA2-209-04 2F Eastside Corridor
R/B	A	FA2-209		FA2-209-05	FA2-209-05 2F Westside Corridor
R/B	A	FA2-209		FA2-209-06	FA2-209-06 3F Eastside Corridor
R/B	A	FA2-209		FA2-209-07	FA2-209-07 Piping Room
R/B	N	FA2-210		FA2-210 Area	FA2-210-10
R/B	N	FA2-210	FA2-210-11		Volume Control Tank Room
R/B	N	FA2-210	FA2-210-12		FA2-210-12 Piping Room

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 7 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	N	FA2-210	FA2-210 Area	FA2-210-13	Spent Fuel Handling Zone
R/B	N	FA2-210		FA2-210-14	FA2-210-14 Piping Room
R/B	N	FA2-210		FA2-210-15	FA2-210-15 4F Eastside Corridor
R/B	N	FA2-210		FA2-210-16	C/V Radiation Gas Monitor Room
R/B	N	FA2-210		FA2-210-17	Pass Sampling Rack Room
R/B	N	FA2-210		FA2-210-18	Plant Vent Radiation Gas Monitor Room
R/B	N	FA2-210		FA2-210-19	Fuel Inspection Room
R/B	N	FA2-210		FA2-210-21	FA2-210-21 4F Westside Corridor
<u>R/B</u>	<u>A</u>	<u>FA2-210</u>		<u>FA2-210-22</u>	<u>Free Space</u>
R/B	A	FA2-211	FA2-211Area	FA2-211-01	FA2-211-01 Piping Penetration Area
R/B	N	FA2-212	FA2-212 Area	FA2-212-01	FA2-212-01 Piping Room
R/B	N	FA2-212		FA2-212-02	FA2-212-02 Piping Room
<u>R/B</u>	<u>A</u>	<u>FA2-213</u>	<u>FA2-213 Corridor</u>	<u>FA2-213-01</u>	<u>FA2-213-01 Corridor</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>	FA2-214 Area	<u>FA2-214-01</u>	<u>Volume Control Tank Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-02</u>	<u>FA2-214-02 Piping Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-03</u>	<u>FA2-214-03 Piping Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-04</u>	<u>Pass Sampling Rack Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-05</u>	<u>C/V Radiation Gas Monitor Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-06</u>	<u>Plant Vent Radiation Gas Monitor Room</u>
<u>R/B</u>	<u>N</u>	<u>FA2-214</u>		<u>FA2-214-07</u>	<u>FA2-214-07 4F Westside Corridor</u>
R/B	A	FA2-302		A-Class 1E UPS Room	FA2-302-01

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 8 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	B	FA2-303	B-Class 1E UPS Room	FA2-303-01	B-Class 1E UPS Room
R/B	A	FA2-304	A-Class 1E I&C Room	FA2-304-01	A-Class 1E I&C Room
R/B	A	FA2-304		FA2-304-02	A-Class 1E I&C Room Raised Floor
R/B	B	FA2-307	B-Class 1E I&C Room	FA2-307-01	B-Class 1E I&C Room
R/B	B	FA2-307		FA2-307-02	B-Class 1E I&C Room Raised Floor
R/B	A,B,C,D	FA2-308	Main Control Room	FA2-308-01	Main Control Room
R/B	A,B,C,D	FA2-308		FA2-308-02	Staff Room
R/B	A,B,C,D	FA2-308		FA2-308-03	Main Control Room Raised Floor
R/B	D	FA2-309	D-Class 1E I&C Room	FA2-309-01	D-Class 1E I&C Room
R/B	D	FA2-309		FA2-309-02	D-Class 1E I&C Room Raised Floor
R/B	C	FA2-312	C-Class 1E I&C Room	FA2-312-01	C-Class 1E I&C Room
R/B	C	FA2-312		FA2-312-02	C-Class 1E I&C Room Raised Floor
R/B	D	FA2-313	D-Class 1E UPS Room	FA2-313-01	D-Class 1E UPS Room
R/B	C	FA2-314	C-Class 1E UPS Room	FA2-314-01	C-Class 1E UPS Room
R/B	A	FA2-316	FA2-316 Corridor	FA2-316-01	FA2-316-01 Corridor
R/B	A	FA2-317	FA2-317 Corridor	FA2-317-01	FA2-317-01 Corridor
R/B	NA A	FA2-318	FA2-318 Area	FA2-318-01	FA2-318-01 Zone
R/B	N	FA2-319	FA2-319 Area	FA2-319-01	FA2-319-01 Zone
R/B	N	FA2-320	FA2-320 Corridor	FA2-320-01	FA2-320-01 Corridor
R/B	N	FA2-321	FA2-321 Corridor	FA2-321-01	FA2-321-01 Corridor
R/B	NA A,D	FA2-322	FA2-322 Area	FA2-322-01	FA2-322-01 Piping Room

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 9 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	N	FA2-323	FA2-323 Area	FA2-323-01	FA2-323-01 Piping Room
R/B	N	FA2-323		FA2-323-02	FA2-323-02 Piping Room
R/B	B	FA2-401	B-Class 1E Electrical Room & MCR HVAC Equipment Room	FA2-401-01	B-Class 1E Electrical Room & MCR HVAC Equipment Room
R/B	A	FA2-402	A-Class 1E Electrical Room & MCR HVAC Equipment Room	FA2-402-01	A-Class 1E Electrical Room & MCR HVAC Equipment Room
R/B	C	FA2-403	C-Class 1E Electrical Room & MCR HVAC Equipment Room	FA2-403-01	C-Class 1E Electrical Room & MCR HVAC Equipment Room
R/B	D	FA2-404	D-Class 1E Electrical Room & MCR HVAC Equipment Room	FA2-404-01	D-Class 1E Electrical Room & MCR HVAC Equipment Room
R/B	A	FA2-405	A-MCR Emergency Filtration Unit & Fan Room	FA2-405-01	A-MCR Emergency Filtration Unit & Fan Room
R/B	D	FA2-406	B-MCR Emergency Filtration Unit & Fan Room	FA2-406-01	B-MCR Emergency Filtration Unit & Fan Room
R/B	ND	FA2-407	FA2-407 Area	FA2-407-03	MCR Monitor Room (FA2-407-03)
R/B	A	FA2-408	R/B-3F A-Electrical Penetration Area	FA2-408-01	R/B-3F A-Electrical Penetration Area
R/B	B	FA2-409	B-Electrical Penetration Area	FA2-409-01	R/B-3F B-Electrical Penetration Area
R/B	B	FA2-409		FA2-409-02	R/B-4F B-Electrical Penetration Area
R/B	C	FA2-410	C-Electrical Penetration Area	FA2-410-01	R/B-3F C-Electrical Penetration Area
R/B	C	FA2-410		FA2-410-02	R/B-4F C-Electrical Penetration Area
R/B	D	FA2-411	R/B-3F D-Electrical Penetration Area	FA2-411-01	R/B-3F D-Electrical Penetration Area
R/B	A,B	FA2-412	FA2-412 Duct Space Area	FA2-412-01	FA2-412-01 Duct Space Zone
R/B	C,D	FA2-413	FA2-413 Duct Space Area	FA2-413-01	FA2-413-01 Duct Space Zone

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 10 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	A,B	FA2-414	FA2-414 MSFW Piping Room	FA2-414-01	FA2-414-01 MSFW Piping Room
R/B	C,D	FA2-415	FA2-415 MSFW Piping Room	FA2-415-01	FA2-415-01 MSFW Piping Room
R/B	A	FA2-416	A-Annulus Emergency Exhaust Filtration Unit & Fan Room	FA2-416-01	A-Annulus Emergency Exhaust Filtration Unit & Fan Room
R/B	D	FA2-417	B-Annulus Emergency Exhaust Filtration Unit & Fan Room	FA2-417-01	B-Annulus Emergency Exhaust Filtration Unit & Fan Room
R/B	D	FA2-418	FA2-418 3F Westside Corridor	FA2-418-01	FA2-418-01 3F Westside Corridor
R/B	ED	FA2-419	FA2-419 3F Non-Radioactive Area Westside Corridor	FA2-419-01	FA2-419-01 3F Non-Radioactive Area Westside Corridor
R/B	A	FA2-420	FA2-420 Area	FA2-420-01	FA2-420-01 3F Non-Radioactive Area Eastside Corridor
R/B	A	FA2-420		FA2-420-02	MCR Monitor Room (FA2-420-02)
R/B	A	FA2-421	FA2-421 Corridor	FA2-421-01	FA2-421-01 Corridor
R/B	D	FA2-422	FA2-422 Corridor	FA2-422-01	FA2-422-01 Corridor
R/B	DC	FA2-423	FA2-423 Corridor	FA2-423-01	FA2-423-01 Corridor
<u>R/B</u>	<u>B</u>	<u>FA2-424</u>	<u>FA2-424 Corridor</u>	<u>FA2-424-01</u>	<u>FA2-424-01 Corridor</u>
R/B	NA , B	FA2-501	A-Emergency Feedwater Pit	FA2-501-02	A-Emergency Feedwater Pit
R/B	A,B,C,D	FA2-502	Reactor Trip Breaker Cabinet-1 Room	FA2-502-01	Reactor Trip Breaker Cabinet-1 Room
R/B	A,B,C,D	FA2-503	Reactor Trip Breaker Cabinet-2 Room	FA2-503-01	Reactor Trip Breaker Cabinet-2 Room
R/B	A,B,C,D	FA2-504	Remote Shutdown Console Room	FA2-504-01	Remote Shutdown Console Room
R/B	N	FA2-505	FA2-505 Stairwell	FA2-505-01	FA2-505-01 Stairwell
R/B	A	FA2-506	C/V Equipment Hatch R/B side Room	FA2-506-01	C/V Equipment Hatch R/B side Room

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 11 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
R/B	A	FA2-507	FA2-507 Area	FA2-507-01	FA2-507-01 Non-Radioactive Zone Eastside Corridor
R/B	A	FA2-507		FA2-507-02	SGBD Water Radiation Monitor Room
R/B	CD	FA2-508	FA2-508 Area	FA2-508-01	MG Set Room
R/B	CD	FA2-508		FA2-508-02	MG Set Control Panel Room
R/B	A,B,C,D	FA2-509	FA2-509 Area	FA2-509-01	FA2-509-01 Non-Radioactive Zone Westside Corridor
R/B	CD	FA2-510	FA2-510 Area	FA2-510-01	LRT Room
R/B	CD	FA2-510		FA2-510-02	CRDM Cabinet Room
R/B	D	FA2-511	R/B-4F Penetration Area (FA2-511)	FA2-511-01	R/B-4F Penetration Area (FA2-511-01)
R/B	NC,D	FA2-512	B-Emergency Feedwater Pit	FA2-512-01	B-Emergency Feedwater Pit
R/B	N	FA2-513	FA2-513 Area	FA2-513-01	FA2-513-01 Zone
R/B	B	FA2-601	FA2-601 Area	FA2-601-01	A-CCW Surge Tank Room
R/B	B	FA2-601		FA2-601-02	C/V Purge Air Handling Unit Room
R/B	C	FA2-602	B-CCW Surge Tank Room	FA2-602-01	B-CCW Surge Tank Room
R/B	A	FA2-603	FA2-603 Area	FA2-603-01	FA2-603-01 Area
R/B	D	FA2-604	FA2-604 Area	FA2-604-01	FA2-604-01 Area
PS/B	A	FA3-101	A-Essential Chiller Unit & Pump Room	FA3-101-01	A-Essential Chiller Unit & Pump Room
PS/B	B	FA3-102	B-Essential Chiller Unit & Pump Room	FA3-102-01	B-Essential Chiller Unit & Pump Room

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 12 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
PS/B	B	FA3-103	B-Class 1E GTG Room	FA3-103-01	B-GTG Auxiliary Component Room
PS/B	B	FA3-103		FA3-103-02	B-GTG Fuel Piping Area
PS/B	B	FA3-103		FA3-103-03	B-Class 1E GTG Room
<u>PS/B</u>	<u>B</u>	<u>FA3-103</u>		<u>FA3-103-04</u>	<u>B-Class 1E Gas Turbine Generator Control Board Room</u>
PS/B	A	FA3-104	A-Class 1E GTG Room	FA3-104-01	A-GTG Auxiliary Component Room
PS/B	A	FA3-104		FA3-104-02	A-GTG Fuel Piping Area
PS/B	A	FA3-104		FA3-104-03	A-Class 1E GTG Room
<u>PS/B</u>	<u>A</u>	<u>FA3-104</u>		<u>FA3-104-04</u>	<u>A-Class 1E Gas Turbine Generator Control Board Room</u>
PS/B	N	FA3-105	A-AAC GTG Room	FA3-105-01	A-AAC Power Source Starter Battery Room
PS/B	NA	FA3-105		FA3-105-02	A-AAC GTG Room
PS/B	N	FA3-105		FA3-105-03	A-AAC Fuel Piping Area
PS/B	BN	FA3-106	FA3-106 Area	FA3-106-01	FA3-106-01 Corridor
PS/B	C	FA3-108	C-Essential Chiller Unit & Pump Room	FA3-108-01	C-Essential Chiller Unit & Pump Room
PS/B	C	FA3-109	C-Class 1E GTG Room	FA3-109-01	C-GTG Auxiliary Component Room
PS/B	C	FA3-109		FA3-109-02	C-GTG Fuel Piping Area
PS/B	C	FA3-109		FA3-109-03	C-Class 1E GTG Room
PS/B	D	FA3-110	D-Essential Chiller Unit & Pump Room	FA3-110-01	D-Essential Chiller Unit & Pump Room

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 13 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
PS/B	D	FA3-111	D-Class 1E GTG Room	FA3-111-01	D-GTG Auxiliary Component Room
PS/B	D	FA3-111		FA3-111-02	D-GTG Fuel Piping Area
PS/B	D	FA3-111		FA3-111-03	D-Class 1E GTG Room
PS/B	C	FA3-112	FA3-112 Area	FA3-112-01	FA3-112-01 Corridor
PS/B	N	FA3-113	B-AAC GTG Room	FA3-113-01	B-AAC Power Source Starter Battery Room
PS/B	C	FA3-113		FA3-113-02	B-AAC GTG Room
PS/B	N	FA3-113		FA3-113-03	B-AAC Fuel Piping Area
PS/B	N	FA3-114	Cable Tray Space	FA3-114-01	Cable Tray Space
PS/B	A	FA3-115	A-Class 1E Battery Room	FA3-115-01	A-Class 1E Battery Room
PS/B	B	FA3-116	B-Class 1E Battery Room	FA3-116-01	B-Class 1E Battery Room
PS/B	A	FA3-117	A-Class 1E Battery Charger Room	FA3-117-01	A-Class 1E Battery Charger Room
PS/B	B	FA3-118	B-Class 1E Battery Charger Room	FA3-118-01	B-Class 1E Battery Charger Room
PS/B	A	FA3-119	Spare Battery Charger-1 Room	FA3-119-01	Spare Battery Charger-1 Room
PS/B	C	FA3-120	C-Class 1E Battery Room	FA3-120-01	C-Class 1E Battery Room
PS/B	D	FA3-121	D-Class 1E Battery Room	FA3-121-01	D-Class 1E Battery Room
PS/B	C	FA3-122	C-Class 1E Battery Charger Room	FA3-122-01	C-Class 1E Battery Charger Room
PS/B	D	FA2-123	D-Class 1E Battery Charger Room	FA3-123-01	D-Class 1E Battery Charger Room
PS/B	D	FA3-124	Spare Battery Charger-2 Room	FA3-124-01	Spare Battery Charger-2 Room
PS/B	B	FA3-125	A-AAC Selector Circuit Panel Room	FA3-125-01	A-AAC Selector Circuit Panel Room
PS/B	C	FA3-126	B-AAC Selector Circuit Panel Room	FA3-126-01	B-AAC Selector Circuit Panel Room
<u>PS/B</u>	<u>B</u>	<u>FA3-127</u>	<u>FA3-127 Stairwell</u>	<u>FA3-127-01</u>	<u>FA3-127-01 Stairwell</u>

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 14 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
PS/B	B	FA3-128	FA3-128-01 Piping Room	FA3-128-01	FA3-128-01 Piping Room
PS/B	A	FA3-129	FA3-129-01 Corridor	FA3-129-01	FA3-129-01 Corridor
PS/B	B	FA3-130	FA3-130-01 Corridor	FA3-130-01	FA3-130-01 Corridor
PS/B	D	FA3-131	FA3-131-01 Corridor	FA3-131-01	FA3-131-01 Corridor
PS/B	A	FA3-132	A-Class 1E MOV Inverter Room	FA3-132-01	A-Class 1E MOV Inverter Room
PS/B	B	FA3-133	B-Class 1E MOV Inverter Room	FA3-133-01	B-Class 1E MOV Inverter Room
PS/B	C	FA3-134	C-Class 1E MOV Inverter Room	FA3-134-01	C-Class 1E MOV Inverter Room
PS/B	D	FA3-135	D-Class 1E MOV Inverter Room	FA3-135-01	D-Class 1E MOV Inverter Room
A/B	N	FA4-101	Auxiliary Building	FA4-101-01	Auxiliary Building B1F Floor
A/B	N	FA4-101		FA4-101-02	FA4-101-02 Stairwell (B1F~3F)
A/B	N	FA4-101		FA4-101-03	Boric Acid Tank Room
A/B	N	FA4-101		FA4-101-04	Auxiliary Building 1F Floor
A/B	N	FA4-101		FA4-101-06	Non-Class 1E Electrical Room (FA4-101-06)
A/B	N	FA4-101		FA4-101-07	Computer Room
A/B	N	FA4-101		FA4-101-08	Non-Class 1E I&C Room (FA4-101-08)
A/B	N	FA4-101		FA4-101-09	Radwaste Control Room
A/B	N	FA4-101		FA4-101-10	FA4-101-10 Corridor
A/B	N	FA4-101		FA4-101-11	Non-Class 1E I&C Room (FA4-101-11)

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 15 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
A/B	N	FA4-101	Auxiliary Building	FA4-101-12	Non-Class 1E I&C Room (FA4-101-12)
A/B	N	FA4-101		FA4-101-13	Non-Class 1E Electrical Room (FA4-101-13)
A/B	N	FA4-101		FA4-101-14	Communication System Equipment Room
A/B	N	FA4-101		FA4-101-15	Resin Fill Tank Room <u>FA4-101-15 Corridor</u>
A/B	N	FA4-101		FA4-101-16	Non-Class 1E Battery Room
A/B	N	FA4-101		FA4-101-17	Boric Acid Batching Tank Room <u>SG Blowdown Cation Bed & Mixed Bed Demineralizers Area</u>
A/B	N	FA4-101		FA4-101-18	HVAC Equipment Room (FA4-101-18)
A/B	N	FA4-101		FA4-101-19	TSC Emergency Filtration Unit & Fan Room
A/B	N	FA4-101		FA4-101-20	HVAC Equipment Room (FA4-101-20)
A/B	N	FA4-101		FA4-101-21	C/V Low Volume Purge Exhaust Filtration Unit Room
A/B	N	FA4-101		FA4-101-22	Hold Up Tank Room
A/B	N	FA4-101		FA4-101-23	Instrument Maintenance Shop (Cold)
A/B	N	FA4-101		FA4-101-24	Auxiliary Building EL.76'-5" Floor
<u>A/B</u>	<u>N</u>	<u>FA4-101</u>			<u>FA4-101-25</u>
AC/B	N	FA5-101	Access Control Building Area	FA5-101-01	Access Control Building
AC/B	N	FA5-101		FA5-101-02	Technical Support Center

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Table 9A-1 US-APWR Fire Areas and Fire Zones (Sheet 17 of 17)

Building	Train	Fire Area	Fire Area Designation	Fire Zone	Fire Zone Designation
T/B	N	FA6-101	Turbine Building	FA6-101-16	Turbine Lube Oil Tank Room
T/B	N	FA6-101		FA6-101-17	Turbine Building 3F Floor
T/B	N	FA6-101		FA6-101-18	Security Room (FA6-101-18)
T/B	N	FA6-101		FA6-101-19	Turbine Building Operation Floor
T/B	N	FA6-101		FA6-101-20	Tool Room (FA6-101-20)
T/B	N	FA6-101		FA6-101-21	Tool Room (FA6-101-21)
T/B	N	FA6-101		FA6-101-22	Security Room (FA6-101-22)
T/B	N	FA6-101		FA6-101-23	Security Room (FA6-101-23)
O/B	A	FA7-101	ESW Piping Tunnel <u>including ESW Pipe Chase</u>	FA7-101-01	A-ESW Piping Tunnel <u>including ESW Pipe Chase</u>
O/B	B	FA7-102	ESW Piping Tunnel <u>including ESW Pipe Chase</u>	FA7-102-01	B-ESW Piping Tunnel <u>including ESW Pipe Chase</u>
O/B	C	FA7-103	ESW Piping Tunnel <u>including ESW Pipe Chase</u>	FA7-103-01	C-ESW Piping Tunnel <u>including ESW Pipe Chase</u>
O/B	D	FA7-104	ESW Piping Tunnel <u>including ESW Pipe Chase</u>	FA7-104-01	D-ESW Piping Tunnel <u>including ESW Pipe Chase</u>
O/B	A	FA7-401	Power Source Fuel Storage Vault	FA7-401-01	A- Class 1E GTG Fuel Storage Vault
O/B	B	FA7-402	Power Source Fuel Storage Vault	FA7-402-01	B- Class 1E GTG Fuel Storage Vault
O/B	N	FA7-403	Power Source Fuel Storage Vault	FA7-403-01	A-AAC GTG Fuel Storage Vault
O/B	C	FA7-404	Power Source Fuel Storage Vault	FA7-404-01	C- Class 1E GTG Fuel Storage Vault
O/B	D	FA7-405	Power Source Fuel Storage Vault	FA7-405-01	D- Class 1E GTG Fuel Storage Vault
O/B	N	FA7-406	Power Source Fuel Storage Vault	FA7-406-01	B-AAC GTG Fuel Storage Vault

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 12 of 306)

Fire Zone: **FA1-101-12**

Building: **Containment**

Floor(s): **2F**

Fig: **9A-5**

Sect: **3.1**

Area Designation: **C/V Area**

Zone Designation: **C/V Reactor Coolant Drain Tank Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,B,C,D,N**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-03	FA1-101-01	FA1-101-25
FA1-101-10	FA1-102-02	FA1-101-26
FA1-101-11	See Table 9A-3	

Fire Barrier Description:
Structural barriers surrounding this fire zone consist of reinforced concrete with some open spaces to the surrounding fire zones. The spatial separation between combustibles combined with the reinforced concrete construction serves to confine any fire influence within this fire zone

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Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic Fire Detection System	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	8.8E+02
Maximum Anticipated Combustible Loading:	1.3E+03

Floor Area (ft ²)
400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 27 of 306)

Fire Zone:	FA2-101-01
Building:	Reactor
Floor(s):	B1F-Roof
Fig:	9A-1 to 9A-10
Sect:	3.2

Area Designation:	FA2-101 Stairwell (B1F~Roof)
Zone Designation:	FA2-101-02 Stairwell (B1F~Roof)

Applicable Regulatory and Code Ref(s):	IBC, RG 1.189; NFPA 10, 14, 72 and 804
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Associated Safety Division(s)	N
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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-111-01	FA2-424-01	Roof
FA2-201-01	FA2-507-01	
FA2-320-01	FA2-601-02	
FA2-420-01	FA3-104-04	
	FA3-103-03 See Table 9A-3	
	9A-3	

Fire Barrier Description:	Structural barriers surrounding this fire zone consist of primarily concrete walls providing 3-hour fire resistant barrier for the stairwell. Fire doors are provide for each entry to the stairwell and all penetrations into the stairwell are protected for 3-hour fire resistance to assure no fire propagation into or out of the stairwell.
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MIC-03-09-00015

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.3E+02

Floor Area (ft ²)	100
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 28 of 306)

Fire Zone: **FA2-102-01**
 Building: **Reactor**
 Floor(s): **B1F to 1MF**
 Fig: **9A-1 to 9A-4**
 Sect: **3.3**

Area Designation: **A-Emergency Feedwater Pump (T/D) Room**
 Zone Designation: **A-Emergency Feedwater Pump (T/D) Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **A**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-103-01	FA2-202-01	FA2-201-01
	FA2-104-01	FA2-320-01	FA2-202-02
	FA2-111-01	FA3-101-01	FA2-429507-01
	FA2-201-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Hydraulic fluid	6.1E+04
Instruments	2.4E+06
Panels	3.2E+05
Lube oil	1.3E+07
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic heat	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.1E+04
Maximum Anticipated Combustible Loading:	6.2E+04

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 29 of 306)

Fire Zone: **FA2-103-01**
 Building: **Reactor**
 Floor(s): **B1F, B1MF**
 Fig: **9A-1, 9A-2**
 Sect: **3.4**

Area Designation: **B-Emergency Feedwater Pump (M/D) Room**
 Zone Designation: **B-Emergency Feedwater Pump (M/D) Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

Adjacent Fire Zones:	Wall	Floor	Ceiling
(Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2-102-01 FA2-104-01 FA2-111-01	-	FA2-202104-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Grease	1.2E+05
Instruments	1.3E+06
Panels	3.2E+05
Rubber	7.6E+05
Lube oil	3.7E+04
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.9E+04
Maximum Anticipated Combustible Loading:	3.5E+04

Floor Area (ft ²)
400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 30 of 306)

Fire Zone: **FA2-104-01**
 Building: **Reactor**
 Floor(s): **B1F, B1MF**
 Fig: **9A-1, 9A-2**
 Sect: **3.5**

Area Designation: **A-Component Cooling Water Pump Room**
 Zone Designation: **A-Component Cooling Water Pump Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-102-01	FA2-104-3-01	FA2-201-01
	FA2-103-01	<u>See Table 9A-3</u>	FA2-202-01
	FA2-105-01		
	FA2-111-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Grease	2.5E+06
Instruments	2.0E+06
Lube oil	5.1E+05
Panels	5.7E+03
Rubber	1.7E+05
High Voltage Cables	7.4E+06
Low Voltage Cables	5.6E+06
Control Cables	9.9E+06
Instrumentation Cables	8.6E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.60E+04
Maximum Anticipated Combustible Loading:	3.424E+04

Floor Area (ft ²)
1,4800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 31 of 306)

Fire Zone: **FA2-105-01**

Building: **Reactor**

Floor(s): **B1F, B1MF**

Fig: **9A-1, 9A-2**

Sect: **3.6**

Area Designation: **B-Component Cooling Water Pump Room**

Zone Designation: **B-Component Cooling Water Pump Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-104-01	-	FA2-201-01
FA2-106-01		FA2-203-01
FA2-111-01		
FA7-102-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Grease	1.1E+06
Instruments	2.2E+06
Lube oil	5.1E+05
Panels	5.7E+03
Rubber	1.7E+05
High Voltage Cables	9.5E+06
Low Voltage Cables	7.1E+06
Control Cables	1.3E+06
Instrumentation Cables	1.1E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Floor Area (ft ²)
1,800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 32 of 306)

Fire Zone:	FA2-106-01	Area Designation:	C-Component Cooling Water Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-Component Cooling Water Pump Room	
Floor(s):	B1F, B1MF	Associated Safety Division(s):	C	
Fig: Sect:	9A-1, 9A-2 3.7			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-105-01	-	FA2-204-01
	FA2-107-01		FA2-206-01
	FA2-112-01		
	FA7-103-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Grease	1.1E+06
Instruments	2.2E+06
Lube oil	5.1E+05
Panels	5.7E+03
Rubber	1.7E+05
High Voltage Cables	9.5E+06
Low Voltage Cables	7.1E+06
Control Cables	1.3E+07
Instrumentation Cables	1.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Floor Area (ft ²)
1,800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 33 of 306)

Fire Zone: **FA2-107-01**

Building: **Reactor**

Floor(s): **B1F, B1MF**

Fig: **9A-1, 9A-2**

Sect: **3.8**

Area Designation: **D-Component Cooling Water Pump Room**

Zone Designation: **D-Component Cooling Water Pump Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall FA2-106-01 FA2-108-01 FA2-109-01 FA7-112-01	Floor FA7-104-01	Ceiling FA2-205-01 FA2-206-01
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Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Grease	2.6E+06
Instruments	2.0E+06
Lube oil	5.1E+05
Panels	5.7E+03
Rubber	1.7E+05
High Voltage Cables	7.4E+06
Low Voltage Cables	5.6E+06
Control Cables	9.9E+06
Instrumentation Cables	8.6E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.2E+04

Floor Area (ft ²)
1,400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 34 of 306)

Fire Zone: **FA2-108-01**
 Building: **Reactor**
 Floor(s): **B1F, B1MF**
 Fig: **9A-1 to 9A-4**
 Sect: **3.9**

Area Designation: **D-Emergency Feedwater Pump (T/D) Room**
 Zone Designation: **D-Emergency Feedwater Pump (T/D) Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-107-01	FA2-206-01	FA2-205-01
	FA2-109-01	FA2-321-01	FA2-206-01
	FA2-112-01		FA2-423509-01
	FA2-205-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Hydraulic fluid	6.1E+04
Instruments	2.6E+07
Lube oil	1.3E+07
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06
Panels	3.2E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.4E+04
Maximum Anticipated Combustible Loading:	1.1E+05

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 35 of 306)

Fire Zone: **FA2-109-01**
 Building: **Reactor**
 Floor(s): **B1F, B1MF**
 Fig: **9A-1, 9A-2**
 Sect: **3.10**

Area Designation: **C-Emergency Feedwater Pump (M/D) Room**
 Zone Designation: **C-Emergency Feedwater Pump (M/D) Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **C**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-107-01	-	FA2-206112-01
	FA2-108-01		
	FA2-112-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Grease	1.2E+05
Instruments	1.2E+06
Rubber	7.6E+05
Lube oil	3.7E+04
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06
Panels	3.2E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.9E+04
Maximum Anticipated Combustible Loading:	3.5E+05

Floor Area (ft ²)
400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 36 of 306)

Fire Zone: **FA2-110-01**
 Building: **Reactor**
 Floor(s): **B1F to Roof**
 Fig: **9A-1 to 9A-10**
 Sect: **3.11**

Area Designation: **FA2-110 E.V. Shaft**
 Zone Designation: **FA2-110-01 E.V. Shaft**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

Adjacent Fire Zones:
 (Primary Inter face
 Listed See Table 9A-3
 For Complete Listing)

Wall	Floor	Ceiling
FA2-112-01	FA2-509-01	Roof
FA2-206-01	FA2-602-01	See Table 9A-3
FA2-321-01	FA2-604-01	
FA2-42319-01	FA3-109-03	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Elevator doors fire resistant per elevator code. All penetration and other opening are protected to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+03

Floor Area (ft ²)	50
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this area to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 38 of 306)

Fire Zone: **FA2-112-01**

Building: **Reactor**

Floor(s): **B1F, B1MF**

Fig: **9A-1, 9A-2**

Sect: **3.13**

Area Designation: **FA2-112 Corridor**

Zone Designation: **FA2-112-01 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

Adjacent Fire Zones:
 (Primary Inter face
 Listed See Table 9A-3
 For Complete Listing)

Wall	Floor	Ceiling
FA2-106-01	FA2-140 09-01	FA2-462 204-
FA2-107-01	FA2-444-04	041
FA2-108-01	FA2-445-02	FA2-205-01
FA2-109-01	FA2-445-03 See Table 9A-3	FA2-206-01
		See Table 9A-3

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.4E+06
Lube oil	8.5E+03
Panels	7.6E+05
High Voltage Cables	8.2E+06
Low Voltage Cables	6.1E+06
Control Cables	1.1E+07
Instrumentation Cables	9.6E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.41.9E+04
Maximum Anticipated Combustible Loading:	2.92E+04

Floor Area (ft ²)
4,560 2,000

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 40 of 306)

Fire Zone: **FA2-113-02**

Building: **Reactor**

Floor(s): **B1F**

Fig: **9A-1**

Sect: **3.14**

Area Designation: **A-SI Pump Room, CS/RHR Pump Room Area**

Zone Designation: **A-CS/RHR Pump Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-113-01	FA2-123-02	FA2-154-01
FA2-113-03		
FA2-113-04		
FA2-1201-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

MIC-03-09-00015

Potential Combustibles	
Item	Heat Release (Btu)
Lube oil	1.8E+05
Panels	9.4E+05
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 45 of 306)

Fire Zone: **FA2-114-03**

Building: **Reactor**

Floor(s): **B1F**

Fig: **9A-1**

Sect: **3.15**

Area Designation: **B-SI Pump Room, CS/RHR Pump Room Area**

Zone Designation: **FA2-114-03 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor/Wall	Ceiling
FA2-111-01	-FA3-106-01	FA2-151-01
FA2-114-01	FA3-117-01	FA2-154-02
FA2-114-02	FA3-119-01	
FA2-121-01	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

MIC-03-09-00015

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.1E+06
High Voltage Cables	2.6E+06
Low Voltage Cables	2.0E+06
Control Cables	3.5E+06
Instrumentation Cables	3.1E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 52 of 306)

Fire Zone: **FA2-118-01**
 Building: **Reactor**
 Floor(s): **B1F to 4F**
 Fig: **9A-1 to 9A-8**
 Sect: **3.198**

Area Designation: **FA2-118 E.V. Shaft**
 Zone Designation: **FA2-118-01 E.V. Shaft**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-119-01	FA2-20913-051	Roof
	FA2-128-01	FA2-2104-2407	
	FA2-128-02	FA2-418-01	
	FA2-130-01	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Elevator doors fire resistant per elevator code. All penetration and other opening are protected to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
50

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+03

Table 9A-2 Fire Hazard Analysis Summary (Sheet 53 of 306)

Fire Zone: **FA2-119-01**

Building: **Reactor**

Floor(s): **B1F to 4F**

Fig: **9A-1 to 9A-8**

Sect: **3.2019**

Area Designation: **FA2-119 Stairwell**

Zone Designation: **FA2-119-01 Stairwell**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	FA2-20913-051	Roof
FA2-128-01	FA2-2104-2407	
FA2-128-02	FA2-418-01	
FA2-130-01	See Table 9A-3	

Fire Barrier Description:
Structural barriers surrounding this fire zone consist of primarily concrete walls providing 3-hour fire resistant barrier for the stairwell. Fire doors are provide for each entry to the stairwell and all penetrations into the stairwell are protected for 3-hour fire resistance to assure no fire propagation into or out of the stairwell.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.36.2E+02

Floor Area (ft ²)	1050
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 54 of 306)

Fire Zone: **FA2-121-01**
 Building: **Reactor**
 Floor(s): **B1F**
 Fig: **9A-1**
 Sect: **3.220**

Area Designation: **FA2-121 Corridor**
 Zone Designation: **FA2-121-01 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-113-02	FA2-121-02	FA2-113-04
	FA2-113-03	FA2-122-01	FA2-154-02
	FA2-113-04	FA2-123-02	FA2-155-01
	FA2-114-03	<u>See Table 9A-3</u>	<u>Roof</u>

Fire Barrier Description:
 Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	7.9E+05
Panels	3.1E+05
High Voltage Cables	9.8E+06
Low Voltage Cables	7.3E+06
Control Cables	1.3E+07
Instrumentation Cables	1.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
2,700

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.6E+04
Maximum Anticipated Combustible Loading:	1.9E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 56 of 306)

Fire Zone: **FA2-122-01**

Building: **Reactor**

Floor(s): **B1F to 4F**

Fig: **9A-1 to 9A-8**

Sect: **3.231**

Area Designation: **FA2-122 Stairwell (B1F~Roof)**

Zone Designation: **FA2-122-01 Stairwell (B1F~Roof)**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-121-01	FA2-210-10	FA2-210-13
FA2-121-02	See Table 9A-3	
FA2-155-01		
FA2-209-03		

Fire Barrier Description:
Structural barriers surrounding this fire zone consist of primarily concrete walls providing 3-hour fire resistant barrier for the stairwell. Fire doors are provide for each entry to the stairwell and all penetrations into the stairwell are protected for 3-hour fire resistance to assure no fire propagation into or out of the stairwell.

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.3E+02

Floor Area (ft ²)
100

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 57 of 306)

Fire Zone: **FA2-123-02**
 Building: **Reactor**
 Floor(s): **B1F to 1F**
 Fig: **9A-1 to 9A-3**
 Sect: **3.242**

Area Designation: **Tendon Gallery Area**
 Zone Designation: **Tendon Gallery Area**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-111-01	FA2-114-01	FA2-155-01
	FA2-112-01	FA2-114-02	FA2-211-01
	FA2-113-01	FA2-115-01	See Table 9A-3
	FA2-1143-042	FA2-115-02	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+01

Floor Area (ft²)
4,800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 62 of 306)

Fire Zone: **FA2-127-02**
 Building: **Reactor**
 Floor(s): **B1MF to 1MF**
 Fig: **9A-2 to 9A-4**
 Sect: **3.4826**

Area Designation: **FA2-127 Area**
 Zone Designation: **Piping Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,D**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-127-04	FA2-127-06	FA2-127-06
	FA2-127-06	FA2-128-02	FA2-20913-051
	FA2-127-07	FA2-129-01	FA2-2104-401
	FA2-128-01	FA2-130-01	FA2-2104-402
	FA2-128-02		

Fire Barrier Description:
 Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	5.5E+05
High Voltage Cables	4.8E+06
Low Voltage Cables	3.6E+06
Control Cables	6.3E+06
Instrumentation Cables	5.6E+06
Instruments	8.8E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.8E+04
Maximum Anticipated Combustible Loading:	4.6E+04

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 66 of 306)

Fire Zone: **FA2-127-06**

Building: **Reactor**

Floor(s): **1F, 1MF**

Fig: **9A-3, 9A-4**

Sect: **3.4826**

Area Designation: **FA2-127 Area**

Zone Designation: **Seal Water Hx Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A, DN**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-127-02 FA2-128-02	FA2-127-02	FA2-127-02

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.0E+02
Maximum Anticipated Combustible Loading:	7.0E+02

Floor Area (ft ²)
200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 67 of 306)

Fire Zone: **FA2-127-07**

Building: **Reactor**

Floor(s): **1MF**

Fig: **9A-4**

Sect: **3.4826**

Area Designation: **FA2-127 Area**

Zone Designation: **FA2-127-07 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,D**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-127-02	FA2-127-02	FA2-127-08
FA2-128-02	FA2-153-01	FA2-20913-051
FA2-153-01		FA2-322-01
FA2-212-02	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

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Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)	550
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 68 of 306)

Fire Zone: **FA2-127-08**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.4826**

Area Designation: **FA2-127 Area**

Zone Designation: **FA2-127-08 Piping Room**

Associated Safety Division(s) **A,D**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-153-05	FA2-127-07	FA2-210-013
FA2-20913-061	FA2-153-01	FA2-214-07
FA2-322-01	FA2-153-04	FA2-411-01
	FA2-212-02	FA2-417-01
See Table 9A-3	FA2-322-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	5.1E+06
Instruments	1.1E+06
High Voltage Cables	5.8E+06
Low Voltage Cables	4.4E+06
Control Cables	7.8E+06
Instrumentation Cables	6.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Floor Area (ft ²)
1,000

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 69 of 306)

Fire Zone:	FA2-128-01	Area Designation:	B-Spent Fuel Pit Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-128-01 Corridor	
Floor(s):	B1MF	Associated Safety Division(s)	D	
Fig:	9A-2			
Sect:	3.4827			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-118-01	FA2-130-01	FA2-128-02
	FA2-119-01	See Table 9A-3	
	FA2-127-02		
	FA2-127-03		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	2.4E+06
Low Voltage Cables	1.8E+06
Control Cables	3.2E+06
Instrumentation Cables	2.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.3E+04
Maximum Anticipated Combustible Loading:	1.56E+04

Floor Area (ft ²)
800750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 70 of 306)

Fire Zone:	FA2-128-02	Area Designation:	B-Spent Fuel Pit Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-128-02 Corridor	
Floor(s):	1F, 1MF	Associated Safety Division(s)	D	
Fig:	9A-3, 9A-4			
Sect:	3.4827			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-118-01	FA2-127-03	FA2-127-02
	FA2-119-01	FA2-127-04	FA2-127-07
	FA2-127-02	FA2-128-01	FA2-152-03
	FA2-127-06	FA2-153-02	FA2-209-05
	FA2-127-07	See Table 9A-3	FA2-210-13
			FA2-213-01

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	4.0E+05
Instruments	3.8E+06
Panels	1.8E+04
High Voltage Cables	1.4E+07
Low Voltage Cables	1.1E+07
Control Cables	2.0E+07
Instrumentation Cables	1.8E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Floor Area (ft ²)
2,650

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 83 of 306)

Fire Zone:	FA2-152-03	Area Designation:	C-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-CS/RHR Hx Room	
Floor(s):	1F, 1MF	Associated Safety Division(s)	C	
Fig:	9A-3, 9A-4			
Sect:	3.2731			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-128-02	FA2-152-01	FA2-152-05
	FA2-152-01	FA2-152-04	FA2-20913-051
	FA2-152-02	FA2-128-02	FA2-317-01
	FA2-152-04	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
High Voltage Cables	4.2E+06
Low Voltage Cables	3.2E+06
Control Cables	5.6E+06
Instrumentation Cables	4.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
800

Table 9A-2 Fire Hazard Analysis Summary (Sheet 84 of 306)

Fire Zone:	FA2-152-04	Area Designation:	C-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-152-04 Corridor	
Floor(s):	1F, 1MF	Associated Safety Division(s):	C	
Fig:	9A-3, 9A-4			
Sect:	3.2731			

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-128-02	FA2-112-04	FA2-152-03
	FA2-152-04	FA2-152-01	FA2-152-06
	FA2-152-01	FA2-153-02	FA2-317-01
	FA2-152-02	See Table 9A-3	FA2-321-01

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	7.9E+05
Instruments	1.8E+06
High Voltage Cables	9.0E+06
Low Voltage Cables	6.7E+06
Control Cables	1.2E+07
Instrumentation Cables	1.0E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.45E+04
Maximum Anticipated Combustible Loading:	2.93.0E+04

Floor Area (ft ²)
4,700
1,650

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 86 of 306)

Fire Zone:	FA2-152-06	Area Designation:	C-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	R/B-2F C-Piping Penetration Area (FA2-152-06)	
Floor(s):	2F, 2MF	Associated Safety Division(s)	C	
Fig:	9A-5, 9A-6			
Sect:	3.2731			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-05	FA2-152-01	FA2-410-01
	FA2-151-06	FA2-152-02	FA2-419-04
	FA2-152-05	FA2-152-04	
	FA2-318-01		
	FA2-321-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	9.4E+06
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06
Instruments	1.8E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.0E+04
Maximum Anticipated Combustible Loading:	4.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
550

Table 9A-2 Fire Hazard Analysis Summary (Sheet 89 of 306)

Fire Zone:	FA2-153-03	Area Designation:	D-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	D-CS/RHR Hx Room	
Floor(s):	1F, 1MF	Associated Safety Division(s)	D	
Fig:	9A-3, 9A-4			
Sect:	3.2832			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.
	FA2-128-02	FA2-153-01	FA2-153-05	
	FA2-152-03			
	FA2-153-01			
	FA2-153-04			
	FA2-208-01			

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
High Voltage Cables	4.5E+06
Low Voltage Cables	3.4E+06
Control Cables	6.0E+06
Instrumentation Cables	5.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.43E+04
Maximum Anticipated Combustible Loading:	2.67E+04

Floor Area (ft ²)
90850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 91 of 306)

Fire Zone:	FA2-153-05	Area Designation:	D-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	R/B-2F D-Piping Penetration Area (FA2-153-05)	
Floor(s):	2F, 2MF	Associated Safety Division(s):	D	
Fig: Sect:	9A-5, 9A-6 3.2832			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-06	FA2-153-03	FA2-154-06
	FA2-101-07	FA2-153-04	FA2-210-13
	FA2-127-08	FA2-29913-051	FA2-408-01
	FA2-152-05	See Table 9A-3	FA2-411-01

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	4.3E+06
Instruments	3.5E+05
High Voltage Cables	6.6E+06
Low Voltage Cables	5.0E+06
Control Cables	8.8E+06
Instrumentation Cables	7.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.2E+04

Floor Area (ft ²)
1,250

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 92 of 306)

Fire Zone:	FA2-154-01	Area Designation:	A-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	A-RHR Piping Room	
Floor(s):	B1MF to 1MF	Associated Safety Division(s)	A	
Fig: Sect:	9A-2 to 9A-4 3.2433			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-154-02	FA2-113-01	FA2-154-03
	FA2-154-03	FA2-113-02	FA2-210-13
	FA2-154-034	FA2-113-03	FA2-408-01
	FA2-155-01	See Table 9A-3	FA2-411-01

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	8.4E+05
Instruments	7.0E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 95 of 306)

Fire Zone:	FA2-154-04	Area Designation:	A-RHR Piping Room Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	A-Safeguard Component Area AHU Room	
Floor(s):	1F, 1MF	Associated Safety Division(s)	A	
Fig:	9A-3, 9A-4			
Sect:	3.2433			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.
	FA2-154-01	FA2-154-01	FA2-154-05	
	FA2-154-03		FA2-154-06	
	FA2-209-03		FA2-212-02	
	FA2-211-01			
	FA2-212-02			

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	1.2E+06
High Voltage Cables	2.4E+06
Low Voltage Cables	1.8E+06
Control Cables	3.2E+06
Instrumentation Cables	2.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.58E+04
Maximum Anticipated Combustible Loading:	3.04E+04

Floor Area (ft ²)
4600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 99 of 306)

Fire Zone:	FA2-201-01	Area Designation:	FA2-201 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-201-01 Corridor	
Floor(s):	1F, 1MF	Associated Safety Division(s)	B	
Fig:	9A-3, 9A-4			
Sect:	3.2935			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-01	FA2-102-01	FA2-202-01
	FA2-102-01	FA2-111-01	FA2-203-01
	FA2-151-04		FA2-307-021
	FA2-202-01	See Table 9A-3	FA2-3208-031

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	9.5E+04
High Voltage Cables	8.5E+06
Low Voltage Cables	6.3E+06
Control Cables	1.1E+07
Instrumentation Cables	9.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
1,600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 100 of 306)

Fire Zone:	FA2-202-01	Area Designation:	A-Class 1E Electrical Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	A-Class 1E Electrical Room	
Floor(s):	1F, 1MF	Associated Safety Division(s)	A	
Fig:	9A-3, 9A-4			
Sect:	3.306			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-102-01	FA2-102-01	FA2-203-01
	FA2-151-04	FA2-103-04	FA2-302-01
	FA2-201-01	FA2-104-01	FA2-303-01
	FA2-203-01	FA2-111-01	FA2-304-02
	FA2-302-04	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	4.83E+07
Panels	1.1E+06
Instruments	1.84E+05
High Voltage Cables	5.74.6E+06
Low Voltage Cables	4.03.4E+08
Control Cables	54.1E+07
Instrumentation Cables	7.86.2E+06

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.93.2E+04
Maximum Anticipated Combustible Loading:	4.29.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)	2,200
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 101 of 306)

Fire Zone:	FA2-203-01	Area Designation:	B-Class 1E Electrical Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	B-Class 1E Electrical Room	
Floor(s):	1F, 1MF	Associated Safety Division(s):	B	
Fig:	9A-3, 9A-4			
Sect:	3.3+7			

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MIC-03-09-00015

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	<u>FA2-151-04</u>	FA2-105-01	<u>FA2-303-01</u>
	FA2-201-01	<u>FA2-201-01</u>	<u>FA2-304-02</u>
	FA2-202-01	FA2-202-01	FA2-307-042
	FA2-204-01	<u>FA2-111-01</u>	FA2-308-03
	FA6-101-04		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	3.97E+07
Panels	5.1E+06
Instruments	1.85E+05
High Voltage Cables	3.02.6E+07
Low Voltage Cables	3.42.7E+07
Control Cables	2.41E+07
Instrumentation Cables	65.7E+06

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.46.6E+04
Maximum Anticipated Combustible Loading:	87.9E+04

Floor Area (ft ²)
1,850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 102 of 306)

Fire Zone:	FA2-204-01	Area Designation:	C-Class 1E Electrical Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-Class 1E Electrical Room	
Floor(s):	1F, 1MF	Associated Safety Division(s)	C	
Fig:	9A-3, 9A-4			
Sect:	3.328			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-152-04	FA2-106-01	FA2-308-03	
	FA2-203-01	FA2-112-01	FA2-309-02	
	FA2-205-01	FA2-205-01	FA2-312-042	
	FA2-206-01	FA2-206-01	FA2-314-01	
	FA6-101-04			

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	3.97E+07
Panels	5.1E+06
Instruments	3.02.6E+07
High Voltage Cables	3.42.7E+07
Low Voltage Cables	2.41E+07
Control Cables	65.7E+06
Instrumentation Cables	1.85E+05

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.46.6E+04
Maximum Anticipated Combustible Loading:	87.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
1,850

Table 9A-2 Fire Hazard Analysis Summary (Sheet 103 of 306)

Fire Zone:	FA2-205-01	Area Designation:	D-Class 1E Electrical Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	D-Class 1E Electrical Room	
Floor(s):	1F, 1MF	Associated Safety Division(s):	D	
Fig: Sect:	9A-3, 9A-4 3.339			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-108-01	FA2-107-01	FA2-204-01	
	FA2-152-04	FA2-108-01	FA2-308-03	
	FA2-204-01	FA2-10912-01	FA2-309-02	
	FA2-206-01	See Table 9A-3	FA2-312-021	
	FA2-343-04			

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	4.73E+07
Panels	1.1E+06
Instruments	3.80E+06
High Voltage Cables	97.9E+07
Low Voltage Cables	6.4.9E+07
Control Cables	1.30E+07
Instrumentation Cables	1.84E+05

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.83.1E+04
Maximum Anticipated Combustible Loading:	4.29.7E+05

Floor Area (ft ²)
2,300

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 104 of 306)

Fire Zone:	FA2-206-01	Area Designation:	FA2-206 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-206-01 Corridor	
Floor(s):	1F, 1MF	Associated Safety Division(s)	C	
Fig: Sect:	9A-3, 9A-4 3.340			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-108-01	FA2-108-01	FA2-204-01
	FA2-110-01	FA2-112-01	FA2-205-01
	FA2-152-04	See Table 9A-3	FA2-321-01
	FA2-201-01		FA2-308-03
		FA2-312-02	
		FA2-314-04	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	2.7E+05
High Voltage Cables	8.2E+06
Low Voltage Cables	6.1E+06
Control Cables	1.1E+07
Instrumentation Cables	9.6E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.6E+05

Floor Area (ft ²)
1,600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 110 of 306)

Fire Zone: **FA2-209-04**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.1843**

Area Designation: **A-Spent Fuel Pit Pump Room**

Zone Designation: **FA2-209-04 2F Eastside Corridor**

Associated Safety Division(s) **A**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-122-01	FA2-151-03	FA2-154-05
FA2-153-05	FA2-209-03	FA2-209-06
FA2-154-05	FA2-212-02	FA2-210-13
FA2-154-06	See Table 9A-3	FA2-210-22

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

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Potential Combustibles	
Item	Heat Release (Btu)
Grease	5.8E+05
Instruments	1.1E+06
Panels	5.0E+05
Transformer	5.3E+05
High Voltage Cables	1.7E+07
Low Voltage Cables	1.3E+07
Control Cables	2.3E+07
Instrumentation Cables	2.0E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Floor Area (ft ²)
3,1500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 111 of 293)

Fire Zone: **FA2-209-05**

Building: **Reactor**

Floor(s): **2F, 2MF**

-Fig: **9A-5, 9A-6**

-Sect: **3.18**

Area Designation: **A Spent Fuel Pit Pump Room**

Zone Designation: **FA2-209-04 2F Westside Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RC 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	FA2-127-02	FA2-153-05
FA2-119-01	FA2-127-07	FA2-210-13
FA2-127-08	FA2-128-02	FA2-418-01
FA2-153-05	FA2-152-03	See Table 9A-3

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	3.3E+06
Instruments	2.3E+06
Panels	5.2E+05
High Voltage Cables	1.1E+07
Low Voltage Cables	8.3E+06
Control Cables	1.5E+07
Instrumentation Cables	1.3E+07

Fire Detection — Primary	Fire Detection — Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression — Primary	Fire Suppression — Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)	2,250
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 111 of 306)

Fire Zone:	FA2-209-06	Area Designation:	A-Spent Fuel Pit Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-209-06 3F Eastside Corridor	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig: Sect:	9A-7 3.4843			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-122-01	FA2-154-05	FA2-210-13
	FA2-207-01	FA2-209-04	FA2-210-15
	FA2-209-07	See Table 9A-3	
	FA2-210-10		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.3E+05
Panels	4.5E+05
High Voltage Cables	1.1E+07
Low Voltage Cables	8.4E+06
Control Cables	1.5E+07
Instrumentation Cables	1.3E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.45E+04
Maximum Anticipated Combustible Loading:	2.93.0E+04

Floor Area (ft ²)
2,000
1,950

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 112 of 306)

Fire Zone:	FA2-209-07	Area Designation:	A-Spent Fuel Pit Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-209-07 Piping Room	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig:	9A-7			
Sect:	3.4843			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-18	FA2-154-05	FA2-210-13
	FA2-209-06	FA2-323-01	FA2-506-01
	FA2-408-01		
	FA2-416-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	5.6E+06
Low Voltage Cables	4.2E+06
Control Cables	7.4E+06
Instrumentation Cables	6.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.8E+04

Floor Area (ft ²)
750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 113 of 306)

Fire Zone:	FA2-210-10	Area Designation:	FA2-210 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-210-10 Truck Access	
Floor(s):	1F to 3F	Associated Safety Division(s)	N	
Fig:	9A-3 to 9A-7			
Sect:	3.4844			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-122-01	FA2-113-04	FA2-122-01
	FA2-209-03	FA2-121-02	FA2-210-13
	FA2-209-04	<u>See Table 9A-3</u>	<u>FA2-210-22</u>
	FA2-209-06		
	FA2-210-13		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	7.7E+06
Low Voltage Cables	5.8E+06
Control Cables	1.0E+06
Instrumentation Cables	8.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic Heat Detection	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)
1,450

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 114 of 293)

Fire Zone: **FA2-210-11**

Building: **Reactor**

Floor(s): **2F, 2MF**

-Fig: **9A-5, 9A-6**

-Sect: **3.18**

Area Designation: **FA2-210-Area**

Zone Designation: **Volume Control Tank Room**

Applicable Regulatory and Code-Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-209-05	FA2-127-02	FA2-210-14
FA2-210-12		
FA2-210-13		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.6E+06
Low Voltage Cables	1.2E+06
Control Cables	2.4E+06
Instrumentation Cables	4.9E+06

Fire Detection — Primary	Fire Detection — Backup
Automatic Heat Detection	Manual Fire Alarm Pull Station
Fire Suppression — Primary	Fire Suppression — Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	3.4E+04
Maximum Anticipated Combustible Loading:	4.4E+04

Floor Area (ft ²)
200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 116 of 293)

Fire Zone:	FA2-210-12	Area-Designation:	FA2-210-Area	Applicable Regulatory and Code-Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone-Designation:	FA2-210-12 Piping-Room	
Floor(s):	2F, 2MF	Associated-Safety-Division(s):	N	
-Fig: -Sect:	9A-5, 9A-6 3-18			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-209-05	FA2-127-02	FA2-210-14
	FA2-210-11		FA2-418-01
	FA2-210-13		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.1E+06
Low Voltage Cables	7.9E+05
Control Cables	1.4E+06
Instrumentation Cables	1.2E+06

Fire Detection — Primary	Fire Detection — Backup
Automatic Heat Detection	Manual Fire Alarm Pull Station
Fire Suppression — Primary	Fire Suppression — Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	3.0E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.
Floor Area (ft ²)	
150	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 114 of 306)

Fire Zone:	FA2-210-13	Area Designation:	FA2-210 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	Spent Fuel Handling Zone	
Floor(s):	2MF to Roof	Associated Safety Division(s)	N	
Fig: Sect:	9A-6 to 9A-9 3.4844			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-122-01	FA2-122-01	FA2-154-06
	FA2-153-05	FA2-127-08	FA2-408-01
	FA2-154-06	FA2-128-02	FA2-418-01
	FA2-209-04	See Table 9A-3	Roof

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Cable(Crane)	8.0E+06
Crane	5.7E+06
Grease	2.2E+06
Instruments	1.5E+06
Fuel Transfer Devices	5.7E+05
Lighting Transformer	6.6E+05
Lube Oil	1.1E+07
Panels	3.2E+06
Rack and Work Station	3.2E+06
Tool	2.8E+06
High Voltage Cables	5.3E+07
Low Voltage Cables	4.0E+07
Control Cables	7.1E+07
Instrumentation Cables	6.2E+07

Fire Detection – Primary	Fire Detection - Backup
Linear Beam	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.42E+04

Floor Area (ft ²)
10,1500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and extinguished fire in this area will minimize any potential damage to fuel or fuel handling equipment.	There is no safe-shutdown circuits in this zone to be damaged.

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 118 of 293)

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Fire Zone: **FA2-210-14**

Building:	Reactor
Floor(s):	3F
-Fig:	9A-7
-Sect:	3.18

Area Designation:	FA2-210-Area
Zone Designation:	FA2-210-14 Piping Room

Applicable Regulatory and Code Ref(s):	IBC, RG 1.189; NFPA 10, 14, 72 and 804
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Associated Safety Division(s)	N
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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-210-13 FA2-418-01	FA2-210-14 FA2-210-12	FA2-210-13 FA2-210-18

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.6E+06
Low Voltage Cables	1.2E+06
Control Cables	2.4E+06
Instrumentation Cables	1.9E+06

Fire Detection — Primary	Fire Detection — Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression — Primary	Fire Suppression — Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)	300
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 115 of 306)

Fire Zone:	FA2-210-15	Area Designation:	FA2-210 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-210-15 4F Eastside Corridor	
Floor(s):	4F	Associated Safety Division(s)	N	
Fig:	9A-8			
Sect:	3.1844			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-207-01	FA2-209-02	FA2-601-02
	FA2-210-13	FA2-421-01	Roof
	FA2-409-02		See Table 9A-3
	FA2-506-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.2E+05
High Voltage Cables	9.5E+06
Low Voltage Cables	7.2E+06
Control Cables	1.3E+07
Instrumentation Cables	1.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

Floor Area (ft ²)
1,750

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 120 of 293)

Fire Zone: **FA2-210-16**

Building: **Reactor**

Floor(s): **4F**

-Fig: **9A-8**

-Sect: **3.18**

Area Designation: **FA2-210-Area**

Zone Designation: **C/V Radiation Gas Monitor Room**

Applicable Regulatory and Code-Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-210-17	FA2-411-04	FA2-210-24
FA2-210-24	FA2-417-04	
FA2-511-04		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.2E+06

Fire Detection — Primary	Fire Detection — Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression — Primary	Fire Suppression — Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	2.2E+03
Maximum Anticipated Combustible Loading:	2.8E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.

Floor Area (ft²) **550**

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Table 9A-2 — Fire Hazard Analysis Summary (Sheet 121 of 293)

Fire Zone:	FA2-210-17	Area-Designation:	FA2-210-Area	Applicable Regulatory and Code-Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone-Designation:	Pass-Sampling-Rack-Room	
Floor(s):	4F	Associated-Safety-Division(s)	N	
-Fig: -Sect:	9A-8 3-18			

Adjacent Fire Zones: (Primary Inter-face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-25	FA2-411-04	FA2-210-24
	FA2-210-16		
	FA2-210-24		
	FA2-506-04		
	FA2-511-04		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire-resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	8.9E+05
Panels	4.0E+04

Fire Detection — Primary Automatic smoke	Fire Detection — Backup Manual Fire Alarm Pull Station
Fire Suppression — Primary Fire Hose Station	Fire Suppression — Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	6.2E+03
Maximum Anticipated Combustible Loading:	8.0E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.

Floor Area (ft ²)	150
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 122 of 293)

Fire Zone: **FA2-210-18**

Building: **Reactor**

Floor(s): **4F**

-Fig: **9A-8**

-Sect: **3.18**

Area-Designation: **FA2-210-Area**

Zone-Designation: **Plant Vent Radiation Gas-Monitor Room**

Applicable Regulatory and Code-Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-210-13	FA2-210-14	Roof
FA2-210-21	FA2-418-04	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.2E+06

Fire Detection—Primary	Fire Detection—Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression—Primary	Fire Suppression—Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	2.6E+03
Maximum Anticipated Combustible Loading:	3.4E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.
Floor Area (ft ²)	
450	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 116 of 306)

Fire Zone: **FA2-210-19**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.1844**

Area Designation: **FA2-210 Area**

Zone Designation: **Fuel Inspection Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-101-25	FA2-506-01	Roof
FA2-101-26		
FA2-210-13		
FA2-210-21		
FA2-506-01		

Fire Barrier Description:
 Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	9.6E+05
Lube Oil	2.3E+05
Panels	2.1E+06
Rack	2.6E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.4E+03
Maximum Anticipated Combustible Loading:	7.9E+03

Floor Area (ft ²)
550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

Table 9A-2 — Fire Hazard Analysis Summary (Sheet 124 of 293)

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Fire Zone:	FA2-210-21	Area Designation:	FA2-210-Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-210-21-4F Westside Corridor	
Floor(s):	4F	Associated Safety Division(s):	N	
-Fig: -Sect:	9A-8 3.18			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-25	FA2-210-16	Roof
	FA2-118-01	FA2-210-17	See Table 9A-3
	FA2-119-01	FA2-411-01	
	FA2-208-01	FA2-417-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three-hour fire-rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	2.1E+05
Instruments	7.1E+05
Lube Oil	1.6E+05
Panels	6.0E+04
High Voltage Cables	1.3E+07
Low Voltage Cables	1.0E+07
Control Cables	1.8E+07
Instrumentation Cables	1.6E+07

Fire Detection — Primary Automatic smoke	Fire Detection — Backup Manual Fire Alarm Pull Station
Fire Suppression — Primary Fire Hose Station	Fire Suppression — Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuits in this zone to be damaged.

Floor Area (ft ²)
2,650

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 117 of 306)

Fire Zone: **FA2-210-22**
 Building: **Reactor**
 Floor(s): **3F**
 Fig: **9A-7**
 Sect: **3.44**

Area Designation: **FA2-210 Area**
 Zone Designation: **Free Space**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-209-06	FA2-209-04	FA2-210-13
	FA2-210-10	FA2-210-10	
	FA2-210-13		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
500

Table 9A-2 Fire Hazard Analysis Summary (Sheet 118 of 306)

Fire Zone: **FA2-211-01**

Building: **Reactor**

Floor(s):

Fig: **9A-2 to 9A-4**

Sect: **3.4845**

Area Designation: **FA2-211 Area**

Zone Designation: **FA2-211-01 Piping Penetration Area**

Associated Safety Division(s) **A**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-101-01	FA2-123-02	FA2-163-06
FA2-154-04		FA2-154-06
FA2-209-03		FA2-212-02
FA2-212-01		
FA2-212-02		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	2.6E+06
Low Voltage Cables	2.0E+06
Control Cables	3.5E+06
Instrumentation Cables	3.1E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.58E+04
Maximum Anticipated Combustible Loading:	3.04E+04

Floor Area (ft ²)
4600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 119 of 306)

Fire Zone:	FA2-212-01	Area Designation:	FA2-212 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-212-01 Piping Room	
Floor(s):	1F	Associated Safety Division(s)	A	
Fig: Sect:	9A-3 3.4846			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-01	-	FA2-212-02
	FA2-128-02		
	FA2-153-04		
	FA2-211-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	2.6E+06
Low Voltage Cables	2.0E+06
Control Cables	3.5E+06
Instrumentation Cables	3.1E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

Floor Area (ft ²)
500450

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.25E+045
Maximum Anticipated Combustible Loading:	2.73.0E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 120 of 306)

Fire Zone:	FA2-212-02	Area Designation:	FA2-212 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-212-02 Piping Room	
Floor(s):	1MF	Associated Safety Division(s)	N	
Fig:	9A-4			
Sect:	3.4846			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-01	FA2-153-04	FA2-127-08
	FA2-127-07	FA2-154-04	FA2-153-05
	FA2-128-02	FA2-209-03	FA2-154-05
	FA2-153-01	See Table 9A-3	FA2-154-06

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	6.6E+06
Low Voltage Cables	5.0E+06
Control Cables	8.8E+06
Instrumentation Cables	7.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.42E+04
Maximum Anticipated Combustible Loading:	2.56E+04

Floor Area (ft ²)
1,3500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuits in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 121 of 306)

Fire Zone: FA2-213-01	Area Designation: FA2-213 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: FA2-213-01 Corridor	
Floor(s): 2F, 2MF	Associated Safety Division(s): A	
Fig: 9A-5, 6		
Sect: 3.47		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>	<u>Fire Barrier Description:</u> Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-118-01	FA2-127-02	FA2-153-05	
	FA2-119-01	FA2-127-07	FA2-210-13	
	FA2-127-08	FA2-128-02	FA2-418-01	
	FA2-153-05	FA2-153-05	See Table 9A-3	

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>
<u>Grease</u>	3.3E+06
<u>Instruments</u>	2.3E+06
<u>Panels</u>	5.2E+05
<u>High Voltage Cables</u>	1.1E+07
<u>Low Voltage Cables</u>	8.3E+06
<u>Control Cables</u>	1.5E+07
<u>Instrumentation Cables</u>	1.3E+07

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
	<u>Btu/ft²</u>
-	
<u>Anticipated Combustible Loading:</u>	2.4E+04
<u>Maximum Anticipated Combustible Loading:</u>	2.9E+04

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

<u>Floor Area (ft²)</u>
2.200

Table 9A-2 Fire Hazard Analysis Summary (Sheet 122 of 306)

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Fire Zone: FA2-214-01	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: Volume Control Tank Room	
Floor(s): 2F, 2MF	Associated Safety Division(s): N	
Fig: 9A-5, 6		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-210-13	FA2-127-02	FA2-214-03
	FA2-213-01		
	FA2-214-02		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
<u>High Voltage Cables</u>	1.6E+06
<u>Low Voltage Cables</u>	1.2E+06
<u>Control Cables</u>	2.1E+06
<u>Instrumentation Cables</u>	1.9E+06

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
<u>Anticipated Combustible Loading:</u>	3.4E+04
<u>Maximum Anticipated Combustible Loading:</u>	4.1E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

<u>Floor Area (ft²)</u>
200

Table 9A-2 Fire Hazard Analysis Summary (Sheet 123 of 306)

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Fire Zone: FA2-214-02	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: FA2-214-02 Piping Room	
Floor(s): 2F, 2MF	Associated Safety Division(s): N	
Fig: 9A-5, 6		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-210-03	FA2-127-02	FA2-214-03
	FA2-213-01		FA2-418-01
	FA2-214-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

<u>Potential Combustibles</u>	
Item	Heat Release (Btu)
<u>High Voltage Cables</u>	1.1E+06
<u>Low Voltage Cables</u>	7.9E+05
<u>Control Cables</u>	1.4E+06
<u>Instrumentation Cables</u>	1.2E+06

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
-	Btu/ft ²
<u>Anticipated Combustible Loading:</u>	3.0E+04
<u>Maximum Anticipated Combustible Loading:</u>	3.7E+04

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

<u>Floor Area (ft²)</u>
150

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 124 of 306)

Fire Zone: FA2-214-03	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: FA2-214-03 Piping Room	
Floor(s): 3F	Associated Safety Division(s): N	
Fig: 9A-7		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-210-13 FA2-418-01	FA2-214-01 FA2-214-02	FA2-210-13 FA2-214-06

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
<u>High Voltage Cables</u>	1.6E+06
<u>Low Voltage Cables</u>	1.2E+06
<u>Control Cables</u>	2.1E+06
<u>Instrumentation Cables</u>	1.9E+06

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
<u>Anticipated Combustible Loading:</u>	2.2E+04
<u>Maximum Anticipated Combustible Loading:</u>	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.
<u>Floor Area (ft²)</u> 300	

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 125 of 306)

Fire Zone: FA2-214-04	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: Pass Sampling Rack Room	
Floor(s): 4F	Associated Safety Division(s): N	
Fig: 9A-8		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>	<u>Fire Barrier Description:</u> Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.
	FA2-101-25	FA2-411-01	FA2-214-07	
	FA2-214-05			
	FA2-214-07			
	FA2-506-01			
	FA2-511-01			

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>
<u>Panels</u>	1.2E+06

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	7.9E+03
<u>Maximum Anticipated Combustible Loading:</u>	1.0E+04

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

<u>Floor Area (ft²)</u>
150

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 126 of 306)

Fire Zone: FA2-214-05	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: C/V Radiation Gas Monitor Room	
Floor(s): 4F	Associated Safety Division(s): N	
Fig: 9A-8		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-214-04	FA2-411-01	FA2-214-07
	FA2-214-07	FA2-417-01	
	FA2-511-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	8.9E+05
Panels	4.0E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Floor Area (ft ²)
550

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	1.7E+03
Maximum Anticipated Combustible Loading:	2.2E+03

Table 9A-2 Fire Hazard Analysis Summary (Sheet 127 of 306)

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Fire Zone: FA2-214-06
 Building: Reactor
 Floor(s): 4F
 Fig: 9A-8
 Sect: 3.48

Area Designation: FA2-214 Area
 Zone Designation: Plant Vent Radiation Gas Monitor Room

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) N

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>
	<u>FA2-210-13</u> <u>FA2-214-07</u>	<u>FA2-214-03</u> <u>FA2-218-01</u>	<u>Roof</u>

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>
<u>Panels</u>	<u>1.2E+06</u>

<u>Fire Detection – Primary</u> <u>Automatic smoke</u>	<u>Fire Detection - Backup</u> <u>Manual Fire Alarm Pull Station</u>
<u>Fire Suppression – Primary</u> <u>Fire Hose Station</u>	<u>Fire Suppression - Backup</u> <u>Portable Fire Extinguisher</u>

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	<u>3.0E+03</u>
<u>Maximum Anticipated Combustible Loading:</u>	<u>3.8E+03</u>

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
<u>A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.</u>	<u>There is no safe-shutdown circuit in this fire zone to be damaged.</u>

<u>Floor Area (ft²)</u>
<u>400</u>

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 128 of 306)

Fire Zone: FA2-214-07	Area Designation: FA2-214 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: FA2-214-07 Westside Corridor	
Floor(s): 4F	Associated Safety Division(s): N	
Fig: 9A-8		
Sect: 3.48		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>
	FA1-101-25	FA2-127-08	Roof
	FA2-118-01	FA2-214-04	<u>See Table 9A-3</u>
	FA2-119-01	FA2-214-05	
	FA2-208-01	FA2-411-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>
<u>Grease</u>	2.1E+05
<u>Instruments</u>	7.1E+05
<u>Lube Oil</u>	1.5E+05
<u>Panels</u>	6.0E+04
<u>High Voltage Cables</u>	1.3E+07
<u>Low Voltage Cables</u>	1.0E+07
<u>Control Cables</u>	1.8E+07
<u>Instrumentation Cables</u>	1.6E+07

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	2.2E+04
<u>Maximum Anticipated Combustible Loading:</u>	2.7E+04

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

<u>Floor Area (ft²)</u>
2.600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 129 of 306)

Fire Zone: **FA2-302-01**
 Building: **Reactor**
 Floor(s): **2F, 2MF**
 Fig: **9A-5, 9A-6**
 Sect: **3.3849**

Area Designation: **A-Class 1E UPS Room**
 Zone Designation: **A-Class 1E UPS Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-201-01	FA2-201-01	FA2-401-01
	FA2-303-01	FA2-202-01	FA2-402-01
	FA2-304-01	FA2-304-01	
	FA2-304-02	See Table 9A-3	
	FA2-307-01		
	FA2-320-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.8E+06
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.264E+04
Maximum Anticipated Combustible Loading:	3.977E+04

Floor Area (ft²)
4200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 130 of 306)

Fire Zone:	FA2-303-01	Area Designation:	B-Class 1E UPS Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	B-Class 1E UPS Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	B	
Fig:	9A-5, 9A-6			
Sect:	3.3950			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-302-01	FA2-204-04	FA2-401-01
	FA2-307-01	FA2-202-01	<u>FA2-424-01</u>
	FA2-307-02	<u>FA2-203-01</u>	<u>See Table 9A-3</u>
	FA2-320-01	<u>FA2-307-01</u>	
		<u>FA2-320-01</u>	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.8E+06
High Voltage Cables	1.9E+06
Low Voltage Cables	1.4E+06
Control Cables	2.5E+06
Instrumentation Cables	2.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.3 5.8E+04
Maximum Anticipated Combustible Loading:	47.0E+04

Floor Area (ft ²)
350 200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 131 of 306)

Fire Zone:	FA2-304-01	Area Designation:	A-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	A-Class 1E I&C Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	A	
Fig: Sect:	9A-5, 9A-6 3.4051			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-302-01	FA2-304-02	FA2-3072-01
	FA2-307-01	FA2-308-02	FA2-402-01
	FA2-308-02		
	FA6-101-15		
	FA2-320-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.1E+07
High Voltage Cables	4.8E+06
Low Voltage Cables	3.6E+06
Control Cables	6.3E+06
Instrumentation Cables	5.6E+06
Instruments	1.8E+05

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.527E+04
Maximum Anticipated Combustible Loading:	4.233E+04

Floor Area (ft ²)
900
1.150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 132 of 306)

Fire Zone: FA2-304-02	Building: Reactor	Area Designation: A-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Floor(s): 2F	Zone Designation: A-Class 1E I&C Room Raised Flood		
Fig: 9A-5	Associated Safety Division(s): A		
Sect: 3.4051			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-302-04	FA2-202-01	FA2-304-01
	FA2-307-04	FA2-203-01	
	FA2-307-02	See Table 9A-3	
	FA2-308-03		

Fire Barrier Description:
The floor and walls of this zone are of reinforced concrete or other materials which provide at least 3-hour fire resistive capability. The ceiling (floor of I&C room) is substantial metal or floor panel which is not fire rated. All penetrations into the zone from outside the area are protected for 3-hour.

Potential Combustibles		Heat Release (Btu)
Item		
Cable		2.8E+08
Sheet		7.6E+05

Fire Detection – Primary Air Aspirating Very Early Smoke Detection Alarm	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Clean Gaseous Agent	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.424E+05
Maximum Anticipated Combustible Loading:	3.729E+05

Floor Area (ft ²)
900
1,150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 133 of 306)

Fire Zone:	FA2-307-01	Area Designation:	B-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	B-Class 1E I&C Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	B	
Fig:	9A-5, 9A-6			
Sect:	3.4452			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-302-01	FA2-203-04	FA2-303-01
	FA2-303-01	FA2-304-04	FA2-401-01
	FA2-304-01	FA2-307-02	FA2-402-04
	FA2-304-02	FA2-308-02	See Table 9A-3

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	9.9E+06
Instruments	1.8E+05
High Voltage Cables	4.0E+06
Low Voltage Cables	3.0E+06
Control Cables	5.3E+06
Instrumentation Cables	4.6E+06

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.628E+04
Maximum Anticipated Combustible Loading:	4.334E+04

Floor Area (ft ²)
7950

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 134 of 306)

Fire Zone: FA2-307-02	Building: Reactor	Area Designation: B-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Floor(s): 2F	Zone Designation: B-Class 1E I&C Room Raised Flood		
Fig: 9A-5	Associated Safety Division(s): B		
Sect: 3.4452			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-303-04	FA2-202-01	FA2-307-01
	FA2-304-02	FA2-2023-01	
	FA2-308-03		
	FA2-320-04		

Fire Barrier Description:
The floor and walls of this zone are of reinforced concrete or other materials which provide at least 3-hour fire resistive capability. The ceiling (floor of I&C room) is substantial metal or floor panel which is not fire rated. All penetrations into the zone from outside the area are protected for 3-hour.

Potential Combustibles		Heat Release (Btu)
Item		
Cable		2.8E+08
Sheet		7.6E+05

Fire Detection – Primary Air Aspirating Very Early Smoke Detection Alarm	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Clean Gaseous Agent	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.729E+045
Maximum Anticipated Combustible Loading:	4.435E+045

Floor Area (ft ²)
7950

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 135 of 306)

Fire Zone: FA2-308-01	Area Designation: Main Control Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building: Reactor	Zone Designation: Main Control Room	
Floor(s): 2F, 2MF		
Fig: 9A-5, 9A-6	Associated Safety Division(s) A, B, C, D	
Sect: 3.4253		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-308-02	FA2-308-03	FA2-34209-01
	FA2-309-01		FA2-406-01
	FA2-312-01		FA2-413-01
	FA2-314-01		
	FA2-321-01		
	FA6-101-15		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Console and Panels, etc	1.6E+07
Instruments	2.4E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup There is no backup detection system
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.7E+03
Maximum Anticipated Combustible Loading:	9.3E+03

Floor Area (ft ²)
2,350

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	The fire in this zone has the potential to damage the safe-shutdown functions of 4 safety trains. In this fire, Remote Shutdown Console will be available.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 136 of 306)

Fire Zone: **FA2-308-02**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.4253**

Area Designation: **Main Control Room**

Zone Designation: **Staff Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 2001, 14, 72 and 804

Associated Safety Division(s) **A, B, C, D**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-303-01	FA2-308-03	FA2-307-01
FA2-304-01		FA2-405-01
FA2-307-01		FA2-412-01
FA2-308-01		
FA2-320-01		
FA6-101-15		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	2.6E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic Smoke Detection	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Automatic low pressure water mist suppression system	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.1E+02
Maximum Anticipated Combustible Loading:	1.7E+02

Floor Area (ft ²)
2,350

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire by either personnel or by the water mist system will serve to minimize damage from a fire and the affect on plant operations.	The fire in this zone has the potential to damage the safeshutdown functions of 4 safety trains. In this fire, Remote Shutdown Console will be available.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 137 of 306)

Fire Zone: **FA2-308-03**

Building: **Reactor**

Floor(s): **2F**

Fig: **9A-5**

Sect: **3.4253**

Area Designation: **Main Control Room**

Zone Designation: **Main Control Room Raised Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 15, 14, 72 and 804

Associated Safety Division(s) **A, B, C, D**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-303-01	FA2-204-04	FA2-308-01
FA2-304-02	FA2-202-01	FA2-308-02
FA2-307-04	FA2-203-01	
FA2-307-02	See Table 9A-3	
FA2-309-02		

Fire Barrier Description:
The floor and walls of this zone are of reinforced concrete or other materials which provide at least 3-hour fire resistive capability. The ceiling (floor of MCR) is substantial metal or floor panel which is not fire rated. All penetrations into the zone are protected for 3-hour.

Potential Combustibles	
Item	Heat Release (Btu)
Cable	2.8E+08
Sheet	7.6E+05

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.9E+04
Maximum Anticipated Combustible Loading:	7.0E+04

Floor Area (ft ²)
4,700

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	The fire in this zone has the potential to damage the safe-shutdown functions of 4 safety trains. In this fire, Remote Shutdown Console will be available.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 138 of 306)

Fire Zone:	FA2-309-01	Area Designation:	D-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 14, 72, 804 and 2001
Building:	Reactor	Zone Designation:	D-Class 1E I&C Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	D	
Fig:	9A-5, 9A-6			
Sect:	3.4354			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-308-01	FA2-308-01	FA2-3123-01
	FA2-312-01	FA2-309-02	FA2-404-01
	FA2-313-01		
	FA2-401-15		
	FA2-321-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05
Panels	1.1E+07
High Voltage Cables	4.8E+06
Low Voltage Cables	3.6E+06
Control Cables	6.3E+06
Instrumentation Cables	5.6E+06

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.527E+04
Maximum Anticipated Combustible Loading:	4.233E+043

Floor Area (ft ²)
900
1.150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 139 of 306)

Fire Zone: FA2-309-02	Building: Reactor	Area Designation: D-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 14, 72, 804 and 2001
Floor(s): 2F	Zone Designation: D-Class 1E I&C Room Raised Floor		
Fig: 9A-5	Associated Safety Division(s): D		
Sect: 3.4354			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-308-01	FA2-204-01	FA2-309-01
	FA2-312-01	FA2-205-01	
	FA2-312-02		
	FA2-313-04		
	FA6-101-15		

Fire Barrier Description:
The floor and walls of this zone are of reinforced concrete or other materials which provide at least 3-hour fire resistive capability. The ceiling (floor of I&C room) is substantial metal or floor panel which is not fire rated. All penetrations into the zone from outside the area are protected for 3-hour.

Potential Combustibles	
Item	Heat Release (Btu)
Cable	2.8E+08
Sheet	7.6E+05

Fire Detection – Primary Air Aspirating Very Early Smoke Detection Alarm	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Clean Gaseous Agent	Fire Suppression - Backup Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.424E+05
Maximum Anticipated Combustible Loading:	3.729E+05

Floor Area (ft ²)
900
1,150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 140 of 306)

Fire Zone:	FA2-312-01	Area Designation:	C-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-Class 1E I&C Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	C	
Fig:	9A-5, 9A-6			
Sect:	3.4455			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-308-01	FA2-2045-01	FA2-313-01
	FA2-308-03	FA2-308-04	FA2-314-01
	FA2-309-01	FA2-309-04	FA2-403-01
	FA2-309-02	FA2-312-02	FA2-404-04
	FA2-313-01		See Table 9A-3
	FA2-314-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05
Panels	9.9E+06
High Voltage Cables	4.0E+06
Low Voltage Cables	3.0E+06
Control Cables	5.3E+06
Instrumentation Cables	4.6E+06

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.629E+04
Maximum Anticipated Combustible Loading:	4.334E+04

Floor Area (ft ²)	7950
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 141 of 306)

Fire Zone:	FA2-312-02	Area Designation:	C-Class 1E I&C Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-Class 1E I&C Room Raised Floor	
Floor(s):	2F	Associated Safety Division(s)	C	
Fig:	9A-5			
Sect:	3.4455			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-308-03	FA2-204-01	FA2-312-01
	FA2-309-02	FA2-205-01	
	FA2-314-01	FA2-206-04	
	FA2-324-04		

Fire Barrier Description:
The floor and walls of this zone are of reinforced concrete or other materials which provide at least 3-hour fire resistive capability. The ceiling (floor of I&C room) is substantial metal or floor panel which is not fire rated. All penetrations into the zone from outside the area are protected for 3-hour.

Potential Combustibles	
Item	Heat Release (Btu)
Cable	2.8E+08
Sheet	7.6E+05

Fire Detection – Primary Air Aspirating Very Early Smoke Detection Alarm	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Clean Gaseous Agent	Fire Suppression - Backup Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.72.9E+05
Maximum Anticipated Combustible Loading:	4.43.5E+05

Floor Area (ft ²)
7950

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this space which is possible due to the early smoke detection system which discharges the gaseous agent will prevent damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 142 of 306)

Fire Zone: **FA2-313-01**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.4556**

Area Designation: **D-Class 1E UPS Room**

Zone Designation: **D-Class 1E UPS Room**

Associated Safety Division(s) **C**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-205-01 <u>FA2-312-01</u> FA2-309-01 FA2-309-02 FA2-314-01 <u>FA2-321-01</u>	FA2-205-01 <u>FA2-309-01</u> See Table 9A-3	<u>FA2-403-01</u> FA2-404-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.8E+06
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.264E+04
Maximum Anticipated Combustible Loading:	3.977E+04

Floor Area (ft ²)	4200
-------------------------------	-------------

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 143 of 306)

Fire Zone:	FA2-314-01	Area Designation:	C-Class 1E UPS Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	C-Class 1E UPS Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	C	
Fig:	9A-5, 9A-6			
Sect:	3.4657			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-212-01	FA2-204-01	FA2-403-01
	FA2-312-02	FA2-205-01	FA2-423-01
	FA2-313-01	FA2-206-01	<u>See Table 9A-3</u>
	FA2-321-01	FA2-312-01	
	FA2-321-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.8E+06
High Voltage Cables	1.9E+06
Low Voltage Cables	1.4E+06
Control Cables	2.5E+06
Instrumentation Cables	2.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.35.8E+04
Maximum Anticipated Combustible Loading:	47.0E+04

Floor Area (ft ²)
350200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 144 of 306)

Fire Zone:	FA2-316-01	Area Designation:	FA2-316 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-316-01 Corridor	
Floor(s):	2F, 2MF	Associated Safety Division(s)	A	
Fig:	9A-5, 9A-6			
Sect:	3.4858			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-151-05	FA2-151-03	FA2-154-05
	FA2-154-05	FA2-151-04	FA2-421-01
	FA2-207-01	See Table 9A-3	
	FA2-209-04		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	1.4E+05
Instruments	2.5E+06
Panels	1.2E+05
Transformer	1.3E+05
High Voltage Cables	4.1E+06
Low Voltage Cables	3.1E+06
Control Cables	5.4E+06
Instrumentation Cables	4.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
750

Table 9A-2 Fire Hazard Analysis Summary (Sheet 145 of 306)

Fire Zone: **FA2-317-01**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.4859**

Area Designation: **FA2-317 Corridor**

Zone Designation: **FA2-317-01 Corridor**

Associated Safety Division(s) **A**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-152-05	FA2-152-03	FA2-153-05
FA2-153-05	FA2-152-04	FA2-422-01
FA2-208-01		See Table 9A-3
FA2-209-05		
FA2-213-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Grease	1.1E+06
Instruments	7.7E+05
Panels	1.7E+05
High Voltage Cables	3.7E+06
Low Voltage Cables	2.8E+06
Control Cables	4.9E+06
Instrumentation Cables	4.3E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Floor Area (ft ²)
750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 146 of 306)

Fire Zone:	FA2-318-01	Area Designation:	FA2-318 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-318-01 Zone	
Floor(s):	2F, 2MF	Associated Safety Division(s)	NA	
Fig:	9A-5, 9A-6			
Sect:	3.4860			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-152-05	FA2-152-01	FA2-407-03
	FA2-152-06		
	FA2-317-01		
	FA2-321-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.6E+06
Low Voltage Cables	1.2E+06
Control Cables	2.1E+06
Instrumentation Cables	1.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 147 of 306)

Fire Zone:	FA2-319-01	Area Designation:	FA2-319 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-319-01 Zone	
Floor(s):	2F, 2MF	Associated Safety Division(s)	N	
Fig:	9A-5, 9A-6			
Sect:	3.4861			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-151-05	FA2-151-01	FA2-420-02	
	FA2-151-06			
	FA2-316-01			
	FA2-320-01			

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.6E+06
Low Voltage Cables	1.2E+06
Control Cables	2.1E+06
Instrumentation Cables	1.9E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 148 of 306)

Fire Zone:	FA2-320-01	Area Designation:	FA2-320 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-320-01 Corridor	
Floor(s):	2F, 2MF	Associated Safety Division(s)	N	
Fig:	9A-5, 9A-6			
Sect:	3.2962			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA1-101-04	FA2-151-04	FA2-303-01	
	FA2-101-01	FA2-201-01	FA2-420-01	
	FA2-102-01	FA2-202-01	FA2-424-01	
	FA2-151-06		See Table 9A-3	

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	7.9E+06
Low Voltage Cables	6.0E+06
Control Cables	1.1E+07
Instrumentation Cables	9.3E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.76E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
1,5050

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 149 of 306)

Fire Zone:	FA2-321-01	Area Designation:	FA2-321 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-321-01 Corridor	
Floor(s):	2F, 2MF	Associated Safety Division(s)	N	
Fig:	9A-5, 9A-6			
Sect:	3.3463			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA1-101-05	FA2-152-04	FA2-419-01	
	FA2-108-01	FA2-205-01	FA2-423-01	
	FA2-110-01	FA2-206-01	See Table 9A-3	
	FA2-152-06			

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.8E+04
High Voltage Cables	9.0E+06
Low Voltage Cables	6.7E+06
Control Cables	1.2E+07
Instrumentation Cables	1.0E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
1,700

Table 9A-2 Fire Hazard Analysis Summary (Sheet 150 of 306)

Fire Zone:	FA2-322-01	Area Designation:	FA2-322 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-322-01 Piping Room	
Floor(s):	2F	Associated Safety Division(s)	NA, D	
Fig:	9A-5			
Sect:	3.4864			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-127-08	FA2-127-07	FA2-127-08
	FA2-153-05	FA2-153-01	
	FA2-209-05		
	FA2-213-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.8E+05
High Voltage Cables	7.9E+05
Low Voltage Cables	6.0E+05
Control Cables	1.1E+06
Instrumentation Cables	9.3E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 151 of 306)

Fire Zone:	FA2-323-01	Area Designation:	FA2-323 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-323-01 Piping Room	
Floor(s):	2F, 2MF	Associated Safety Division(s)	N	
Fig:	9A-5, 9A-6			
Sect:	3.4865			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-154-05	FA2-154-01	FA2-209-07
	FA2-154-06	FA2-212-02	
	FA2-209-04		
	FA2-323-02		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	7.9E+05
Low Voltage Cables	6.0E+05
Control Cables	1.1E+06
Instrumentation Cables	9.3E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 152 of 306)

Fire Zone: **FA2-323-02**

Building: **Reactor**

Floor(s): **2F, 2MF**

Fig: **9A-5, 9A-6**

Sect: **3.4865**

Area Designation: **FA2-323 Area**

Zone Designation: **FA2-323-02 Piping Room**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-154-05	FA2-154-01	FA2-416-01
FA2-209-04		
FA2-323-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.7E+06
Low Voltage Cables	2.8E+06
Control Cables	4.9E+06
Instrumentation Cables	4.3E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)
700

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 153 of 306)

Fire Zone: **FA2-401-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.4866**

Area Designation: **B-Class 1E Electrical Room & MCR HVAC Equipment Room**

Zone Designation: **B-Class 1E Electrical Room & MCR HVAC Equipment Room**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-402-01	FA2-302-01	FA2-504-04
FA2-412-01	FA2-303-01	FA2-507-04
FA2-414-01	FA2-307-01	FA2-507-1-02
FA2-424-01		

Fire Barrier Description:

Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	5.8E+06
Grease	1.7E+06
Instruments	3.5E+06
Panels	1.2E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 154 of 306)

Fire Zone: **FA2-402-01**
 Building: **Reactor**
 Floor(s): **3F**
 Fig: **9A-7**
 Sect: **3.4967**

Area Designation: **A-Class 1E Electrical Room & MCR HVAC Equipment Room**
 Zone Designation: **A-Class 1E Electrical Room & MCR HVAC Equipment Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

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MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-401-01	FA2-302-01	FA2-504-02
	FA2-412-01	FA2-304-01	<u>FA2-504-01</u>
	FA2-414-01	FA2-307-04	<u>FA2-507-01</u>
	FA2-420-01		
	FA2-401-15		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	5.8E+06
Grease	1.7E+06
Instruments	2.9E+06
Panels	1.2E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 155 of 306)

Fire Zone: **FA2-403-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.5068**

Area Designation: **C-Class 1E Electrical Room & MCR HVAC Equipment Room**

Zone Designation: **C-Class 1E Electrical Room & MCR HVAC Equipment Room**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **C**

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-404-01	FA2-312-01	FA2-5012-01
FA2-413-01	FA2-313-01	FA2-503-01
FA2-415-01	FA2-314-01	FA2-508-01
FA2-419-01		FA2-508-02
FA6-423-01		

Fire Barrier Description:

Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	6.8E+06
Grease	9.8E+05
Instruments	3.0E+06
Panels	1.2E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 156 of 306)

Fire Zone: **FA2-404-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.6469**

Area Designation: **D-Class 1E Electrical Room & MCR HVAC Equipment Room**

Zone Designation: **D-Class 1E Electrical Room & MCR HVAC Equipment Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-403-01	FA2-309-01	FA2-5402-01
FA2-413-01	FA2-342-04	<u>FA2-503-01</u>
FA2-415-01	FA3-313-01	<u>FA2-508-01</u>
<u>FA2-419-01</u>		<u>FA2-508-02</u>
FA2-423-04		
FA6-101-15		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	6.8E+06
Grease	1.7E+06
Instruments	2.7E+06
Panels	1.2E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Floor Area (ft ²)
1,300

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 157 of 306)

Fire Zone: **FA2-405-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.6270**

Area Designation: **A-MCR Emergency Filtration Unit & Fan Room**

Zone Designation: **A-MCR Emergency Filtration Unit & Fan Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 15, 804

Associated Safety Division(s) **A**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-406-01 FA2-412-01 FA2-404-15	FA2-308-02	FA2-414-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Charcoal Filter	6.6E+06
Instruments	1.5E+06
Particle Filters	2.7E+05
High Voltage Cables	3.4E+06
Low Voltage Cables	2.6E+06
Control Cables	4.6E+06
Instrumentation Cables	4.0E+06

Fire Detection – Primary Automatic smoke/heat	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Water spray, and Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.8E+04
Maximum Anticipated Combustible Loading:	4.6E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 158 of 306)

Fire Zone: **FA2-406-01**
 Building: **Reactor**
 Floor(s): **3F**
 Fig: **9A-7**
 Sect: **3.5371**

Area Designation: **B-MCR Emergency Filtration Unit & Fan Room**
 Zone Designation: **B-MCR Emergency Filtration Unit & Fan Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 15, 804

Associated Safety Division(s) **D**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-405-01 FA2-413-01 FA6-404-15	FA2-308-01	FA2-415-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Charcoal Filter	6.6E+06
Instruments	1.5E+06
Particle Filters	2.7E+05
High Voltage Cables	3.4E+06
Low Voltage Cables	2.6E+06
Control Cables	4.6E+06
Instrumentation Cables	4.0E+06

Fire Detection – Primary Automatic smoke/heat	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Water spray, and Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.8E+04
Maximum Anticipated Combustible Loading:	4.6E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 159 of 306)

Fire Zone: FA2-407-03	Building: Reactor	Area Designation: FA2-407 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 3F	Zone Designation: MCR Monitor Room (FA2-407-03)		
Fig: 9A-7	Associated Safety Division(s): ND		
Sect: 3.5472			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-410-01	FA2-318-01	FA2-510-02
	FA2-419-01		
	FA2-422-01		
	FA2-423-04		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.2E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.0E+03
Maximum Anticipated Combustible Loading:	5.1E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 160 of 306)

Fire Zone:	FA2-408-01	Area Designation:	R/B-3F A-Electrical Penetration Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	R/B-3F A-Electrical Penetration Area	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig:	9A-7			
Sect:	3.5573			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA1-101-17	FA2-153-05	FA2-210-13	
	FA1-101-18	FA2-154-06	FA2-506-01	
	FA2-127-08	FA2-210-13		
	FA2-209-06	See Table 9A-3		

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	6.2E+05
High Voltage Cables	4.8E+06
Low Voltage Cables	3.6E+06
Control Cables	6.3E+06
Instrumentation Cables	5.6E+06
Panels	2.5E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.8E+04
Maximum Anticipated Combustible Loading:	2.2E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
1,150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 161 of 306)

Fire Zone: FA2-409-01	Building: Reactor	Area Designation: B-Electrical Penetration Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 3F	Zone Designation: R/B-3F B-Electrical Penetration Area		
Fig: 9A-7	Associated Safety Division(s): B		
Sect: 3.6674			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-15	FA2-151-05	FA2-409-02
	FA2-207-01	FA2-151-06	
	FA2-414-01	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	6.2E+05
High Voltage Cables	7.1E+06
Low Voltage Cables	5.4E+06
Control Cables	9.5E+06
Instrumentation Cables	8.3E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
1,350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 162 of 306)

Fire Zone: FA2-409-02	Building: Reactor	Area Designation: B Electrical Penetration Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 4F	Zone Designation: R/B-4F Electrical Penetration Area (FA2-117-34)		
Fig: 9A-8 Sect: 3.4874	Associated Safety Division(s): B		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-23	FA2-409-01	FA2-601-02
	FA2-207-01	See Table 9A-3	Roof
	FA2-210-15		
FA2-414-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	7.0E+05
Panels	1.6E+05
High Voltage Cables	6.1E+06
Low Voltage Cables	4.6E+06
Control Cables	8.1E+06
Instrumentation Cables	7.1E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.1E+04
Maximum Anticipated Combustible Loading:	2.6E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
1,250

Table 9A-2 Fire Hazard Analysis Summary (Sheet 163 of 306)

Fire Zone: FA2-410-01	Building: Reactor	Area Designation: C-Electrical Penetration Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 3F	Zone Designation: R/B-3F C-Electrical Penetration Area		
Fig: 9A-7	Associated Safety Division(s): C		
Sect: 3.6775			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-16	FA2-152-05	FA2-410-02
	FA2-208-01	FA2-152-06	FA2-510-01
	FA2-407-03		FA2-510-02
	FA2-415-01	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	6.2E+05
High Voltage Cables	7.4E+06
Low Voltage Cables	5.6E+06
Control Cables	9.9E+06
Instrumentation Cables	8.6E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
1,350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 164 of 306)

Fire Zone: FA2-410-02	Building: Reactor	Area Designation: C-Electrical Penetration Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 4F	Zone Designation: R/B-4F C-Electrical Penetration Area		
Fig: 9A-8	Associated Safety Division(s): C		
Sect: 3.4875			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-24	FA2-410-01	Roof
	FA2-208-01	See Table 9A-3	
	FA2-210-24		
	FA2-214-07		
FA2-510-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.4E+06
Low Voltage Cables	2.6E+06
Control Cables	4.6E+06
Instrumentation Cables	4.0E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
650

Table 9A-2 Fire Hazard Analysis Summary (Sheet 165 of 306)

Fire Zone: **FA2-411-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.5876**

Area Designation: **R/B-3F D-Electrical Penetration Area**

Zone Designation: **R/B-3F D-Electrical Penetration Area**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-17	FA2-127-08	FA2-210-13
FA2-127-01	FA2-153-05	FA2-210-16
FA2-208-01	FA2-417-01	FA2-210-17
FA2-408-01	See Table 9A-3	FA2-210-24
		FA2-214-04
		FA2-214-05
		FA2-214-07

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Instruments	6.2E+05
High Voltage Cables	8.5E+06
Low Voltage Cables	6.3E+06
Control Cables	1.1E+07
Instrumentation Cables	9.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)	1,650
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 166 of 306)

Fire Zone:	FA2-412-01	Area Designation:	FA2-412 Duct Space Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-412 Duct Space Area Zone	
Floor(s):	3F	Associated Safety Division(s)	A,B	
Fig: Sect:	9A-7 3.6977			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-401-01	FA2-308-02	FA2-414-01
	FA2-402-01	See Table 9A-3	
	FA2-405-01		
	FA2-413-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	4.0E+05
Instruments	2.1E+06
High Voltage Cables	7.7E+06
Low Voltage Cables	5.8E+06
Control Cables	1.0E+07
Instrumentation Cables	8.9E+06
Panels	2.5E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of A, B safeshutdown train. C, D train remain free from fire damage.

Floor Area (ft ²)
1,450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 167 of 306)

Fire Zone:	FA2-413-01	Area Designation:	FA2-413 Duct Space Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-413 Duct Space Zone	
Floor(s):	3F	Associated Safety Division(s)	C,D	
Fig: Sect:	9A-7 3.6978			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-403-01	FA2-308-01	FA2-415-01	
	FA2-404-01	See Table 9A-3		
	FA2-406-01			
	FA2-412-01			

Potential Combustibles	
Item	Heat Release (Btu)
Grease	4.0E+05
Instruments	2.1E+06
High Voltage Cables	7.7E+06
Low Voltage Cables	5.8E+06
Control Cables	1.0E+07
Instrumentation Cables	8.9E+06
Panels	2.5E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of C, D safeshutdown train. A, B train remain free from fire damage.

Floor Area (ft ²)
1,450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 168 of 306)

Fire Zone: **FA2-414-01**

Building: **Reactor**

Floor(s): **3F to Roof**

Fig: **9A-7 to 9A-10**

Sect: **3.6479**

Area Designation: **FA2-414 MSFW Piping Room**

Zone Designation: **FA2-414-01 MSFW Piping Room**

Associated Safety Division(s) **A,B**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA1-101-15	FA2-405-01	FA2-507-01
FA1-101-23	FA2-412-01	Roof
FA1-101-24	FA2-420-01	
FA2-401-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	6.4E+05
Grease	6.0E+06
Hydraulic fluid	2.0E+05
Instruments	5.9E+06
High Voltage Cables	1.5E+07
Low Voltage Cables	1.1E+07
Control Cables	1.9E+07
Instrumentation Cables	1.7E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.78E+04
Maximum Anticipated Combustible Loading:	3.3E+04

Floor Area (ft ²)
2,7500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of 2 safe-shutdown trains. Two trains remain free from fire damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 169 of 306)

Fire Zone: **FA2-415-01**

Building: **Reactor**

Floor(s): **3F to Roof**

Fig: **9A-7 to 9A-10**

Sect: **3.6280**

Area Designation: **FA2-415 MSFW Piping Room**

Zone Designation: **FA2-415-01 MSFW Piping Room**

Associated Safety Division(s) **C,D**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-16	FA2-406-01	FA2-509-01
FA1-101-24	FA2-413-01	Roof
FA2-403-01	FA2-419-01	
FA2-404-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	6.4E+05
Grease	2.9E+06
Hydraulic fluid	2.9E+05
Instruments	6.1E+06
High Voltage Cables	1.5E+07
Low Voltage Cables	1.1E+07
Control Cables	1.9E+07
Instrumentation Cables	1.7E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.67E+04
Maximum Anticipated Combustible Loading:	3.42E+04

Floor Area (ft ²)	2,7500
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of 2 safe-shutdown trains. Two trains remain free from fire damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 170 of 306)

Fire Zone:	FA2-416-01	Area Designation:	A-Annulus Emergency Exhaust Filtration Unit & Fan Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 72 and 804
Building:	Reactor	Zone Designation:	A-Annulus Emergency Exhaust Filtration Unit & Fan Room	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig:	9A-7			
Sect:	3.481			

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA1-101-18	FA2-154-05	FA2-210-13	
	FA2-207-01	FA2-323-02	FA2-506-01	
	FA2-209-06			
	FA2-209-07			

Potential Combustibles	
Item	Heat Release (Btu)
Filters	3.4E+06
Instruments	2.4E+06
Particle Filters	1.1E+06
Rubber	8.1E+05
High Voltage Cables	6.9E+06
Low Voltage Cables	5.2E+06
Control Cables	9.2E+06
Instrumentation Cables	8.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.8E+04
Maximum Anticipated Combustible Loading:	3.4E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and extinguished fire in this area will minimize any potential damage.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 171 of 306)

Fire Zone: **FA2-417-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.482**

Area Designation: **B-Annulus Emergency Exhaust Filtration Unit & Fan Room**

Zone Designation: **B-Annulus Emergency Exhaust Filtration Unit & Fan Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 72 and 804

Associated Safety Division(s) **D**

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-411-01	FA2-127-08	FA2-240-46
FA2-418-01		FA2-240-24
		FA2-214-05
		FA2-214-07
		FA2-411-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	3.4E+06
Instruments	1.7E+06
Particle Filters	1.1E+06
Rubber	8.1E+05
High Voltage Cables	5.6E+06
Low Voltage Cables	4.2E+06
Control Cables	7.4E+06
Instrumentation Cables	6.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.9E+04
Maximum Anticipated Combustible Loading:	3.5E+04

Floor Area (ft ²)
1,050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and extinguished fire in this area will minimize any potential damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 172 of 306)

Fire Zone:	FA2-418-01	Area Designation:	FA2-418 3F Westside Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-418-01 3F Westside Corridor	
Floor(s):	3F	Associated Safety Division(s)	D	
Fig:	9A-7			
Sect:	3.483			

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-118-01	FA2-153-05	FA2-210-13
	FA2-119-01	FA2-209-05	FA2-210-18
	FA2-127-08	FA2-210-12	FA2-210-24
	FA2-208-01	<u>FA2-213-01</u> See Table 9A-3	<u>FA2-214-06</u> <u>FA2-214-07</u>

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.3E+05
Panels	4.6E+05
High Voltage Cables	1.3E+07
Low Voltage Cables	9.7E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)
2,450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 173 of 306)

Fire Zone:	FA2-419-01	Area Designation:	FA2-419 3F Non-Radioactive Area Westside Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-419-01 3F Non-Radioactive Area Westside Corridor	
Floor(s):	3F	Associated Safety Division(s)	GD	
Fig:	9A-7			
Sect:	3.534			

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MIC-03-09-00015

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA1-101-16	FA2-162-06	FA2-415-01	
	FA2-403-01	FA2-321-01	FA2-509-01	
	FA2-407-03	See Table 9A-3	<u>FA2-510-02</u>	
FA2-410-01				

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.6E+05
Panels	2.4E+04
High Voltage Cables	5.0E+06
Low Voltage Cables	3.8E+06
Control Cables	6.7E+06
Instrumentation Cables	5.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3 1.4E+04
Maximum Anticipated Combustible Loading:	21.7 E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe shutdown circuit in this zone to be damaged. <u>A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.</u>

Floor Area (ft ²)	91.550
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 174 of 306)

Fire Zone:	FA2-420-01	Area Designation:	FA2-420 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-420-01 3F Non-Radioactive Area Westside Corridor	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig: Sect:	9A-7 3.5485			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-15	FA2-402-04	FA2-414-01
	FA2-101-01	FA2-151-06	FA2-507-01
	FA2-404-04	FA2-3202-01	
	FA2-402-01	See Table 9A-3	
	FA2-409-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05
Panels	5.3E+04
High Voltage Cables	1.0E+07
Low Voltage Cables	7.7E+06
Control Cables	1.4E+07
Instrumentation Cables	1.2E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.33.2E+04
Maximum Anticipated Combustible Loading:	23.8E+04

Floor Area (ft ²)
1,9400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 175 of 306)

Fire Zone: FA2-420-02	Building: Reactor	Area Designation: FA2-420 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 3F	Zone Designation: MCR Monitor Room (FA2-420-02)		
Fig: 9A-7	Associated Safety Division(s): A		
Sect: 3.854			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-409-01	FA2-319-01	FA2-513-01
	FA2-420-01		
	FA2-421-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.2E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.0E+03
Maximum Anticipated Combustible Loading:	5.1E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 176 of 306)

Fire Zone:	FA2-421-01	Area Designation:	FA2-421 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-421-01 Corridor	
Floor(s):	3F	Associated Safety Division(s)	A	
Fig:	9A-7			
Sect:	3.486			

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-207-01	FA2-154-05	FA2-210-15	
	FA2-209-06	FA2-316-01		
	FA2-409-01	See Table 9A-3		
	FA2-420-01			

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	4.8E+04
Panels	1.7E+05
High Voltage Cables	4.2E+06
Low Voltage Cables	3.1E+06
Control Cables	5.6E+06
Instrumentation Cables	4.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
750

Table 9A-2 Fire Hazard Analysis Summary (Sheet 177 of 306)

Fire Zone:	FA2-422-01	Area Designation:	FA2-422 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-422-01 Corridor	
Floor(s):	3F	Associated Safety Division(s):	D	
Fig:	9A-7			
Sect:	3.487			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-208-01	FA2-153-05	FA2-240-24
	FA2-407-03	FA2-317-01	FA2-214-07
	FA2-410-01		FA2-510-02
	FA2-418-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	4.3E+04
Panels	1.5E+05
High Voltage Cables	4.2E+06
Low Voltage Cables	3.2E+06
Control Cables	5.6E+06
Instrumentation Cables	4.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)
800

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 178 of 306)

Fire Zone: **FA2-423-01**

Building: **Reactor**

Floor(s): **3F**

Fig: **9A-7**

Sect: **3.6488**

Area Designation: **FA2-423 Corridor**

Zone Designation: **FA2-423-01 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **DC**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-1408-01	FA2-408-04	FA2-505-01
FA2-403-01	FA2-206-04	FA2-509-01
FA2-419-01	FA2-314-01	FA2-540-02
FA2-404-04	FA2-321-01	
FA2-407-03	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.9E+05
Panels	2.8E+04
High Voltage Cables	5.8E+06
Low Voltage Cables	4.4E+06
Control Cables	7.8E+06
Instrumentation Cables	6.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.37.1E+04
Maximum Anticipated Combustible Loading:	2.78.6E+04

Floor Area (ft ²)
4,100
350

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train DC. Train A, B and CD remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 179 of 306)

Fire Zone: FA2-424-01	Area Designation: FA2-424 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: FA2-424-01 Corridor	
Floor(s): 3F	Associated Safety Division(s): B	
Fig: 9A-7		
Sect: 3.89		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-01	FA2-303-01	FA2-507-01
	FA2-102-01	FA3-320-01	
	FA2-401-01		
	FA2-420-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05
Panels	5.3E+04
High Voltage Cables	1.0E+07
Low Voltage Cables	7.7E+06
Control Cables	1.4E+07
Instrumentation Cables	1.2E+07

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	1.3E+05
Maximum Anticipated Combustible Loading:	1.5E+05

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 180 of 306)

Fire Zone: **FA2-501-02**

Building: **Reactor**

Floor(s): **4F, Roof**

Fig: **9A-8, 9A-9**

Sect: **3.6390**

Area Designation: **A-Emergency Feedwater Pit**

Zone Designation: **A-Emergency Feedwater Pit**

Associated Safety Division(s) **NA, B**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-414-01	FA2-4021-01	Roof
FA2-507-01		
FA2-507-02		
FA2-601-01		
FA2-603-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	7.2E+01

Floor Area (ft ²)
1,300

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 181 of 306)

Fire Zone: **FA2-502-01**
 Building: **Reactor**
 Floor(s): **4F**
 Fig: **9A-8**
 Sect: **3.6491**

Area Designation: **Reactor Trip Breaker Cabinet-1 Room**
 Zone Designation: **Reactor Trip Breaker Cabinet-1 Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,B,C,D**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-503-01	FA2-4034-01	Roof
	FA2-508-01		
	FA2-508-02		
	FA2-509-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	7.3E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.9E+03
Maximum Anticipated Combustible Loading:	6.5E+03

Floor Area (ft ²)
150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage 4 trains circuits for RTB-1, but Circuits for RTB-2 remains free from fire damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 182 of 306)

Fire Zone: **FA2-503-01**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.6592**

Area Designation: **Reactor Trip Breaker Cabinet-2 Room**

Zone Designation: **Reactor Trip Breaker Cabinet-2 Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,B,C,D**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-502-01 FA2-508-02 FA2-509-01	FA2-4034-01	FA2-602-01 Roof

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	7.3E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.9E+03
Maximum Anticipated Combustible Loading:	6.5E+03

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage 4 trains circuits for RTB-2, but Circuits for RTB-1 remains free from fire damage.

Floor Area (ft ²)
150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 183 of 306)

Fire Zone: **FA2-504-01**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.6693**

Area Designation: **Remote Shutdown Console Room**

Zone Designation: **Remote Shutdown Console Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A,B,C,D**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-414-04 FA2-507-01 FA2-507-02	FA2-4042-01	FA2-414-04 FA2-601-01 FA2-601-02

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	5.3E+05
Panels	1.8E+06
High Voltage Cables	1.1E+06
Low Voltage Cables	7.9E+05
Control Cables	1.4E+06
Instrumentation Cables	1.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage 4 trains of remote safe shutdown functions, but plant operation can be controlled from Main Control Board.

Floor Area (ft ²)
200

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.4E+04
Maximum Anticipated Combustible Loading:	4.2E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 184 of 306)

Fire Zone: FA2-505-01	Building: Reactor	Area Designation: FA2-505 Stairwell	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 14, 72 and 804
Floor(s): 4F to Roof	Zone Designation: FA2-505-01 Stairwell		
Fig: 9A-8 to 9A-10	Associated Safety Division(s): N		
Sect: 3.6794			

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-509-01 FA2-604-01	FA2-423-01	Roof

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.3E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
100

Table 9A-2 Fire Hazard Analysis Summary (Sheet 185 of 306)

Fire Zone: **FA2-506-01**
 Building: **Reactor**
 Floor(s): **4F**
 Fig: **9A-8**
 Sect: **3.4895**

Area Designation: **C/V Equipment Hatch R/B Side Room**
 Zone Designation: **C/V Equipment Hatch R/B Side Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-25	FA2-209-07	FA2-210-19
	FA1-101-26	FA2-408-01	Roof
	FA2-207-01	FA2-411-01	See Table 9A-3
	FA2-210-13	FA2-416-01	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	2.2E+05
High Voltage Cables	1.8E+07
Low Voltage Cables	1.3E+07
Control Cables	2.4E+07
Instrumentation Cables	2.1E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
3,250

Table 9A-2 Fire Hazard Analysis Summary (Sheet 186 of 306)

Fire Zone: **FA2-507-01**

Building: **Reactor**

Floor(s): **4F, Roof**

Fig: **9A-8, 9A-9**

Sect: **3.963**

Area Designation: **FA2-507 Area**

Zone Designation: **FA2-507-01 Non-Radioactive Zone Eastside Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **A**

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-23	FA2-102-01	FA2-414-01
	FA1-101-24	FA2-404-01	FA2-601-02
	FA2-101-01	FA2-414-01	FA2-603-01
	FA2-210-15	FA2-420-04 See Table 9A-3	Roof

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.0E+06
High Voltage Cables	1.3E+07
Low Voltage Cables	9.5E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Floor Area (ft ²)
2,400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of 2 safe-shutdown train. Two trains remain free from the fire damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 187 of 306)

Fire Zone:	FA2-507-02	Area Designation:	FA2-507 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	SGBD Water Radiation Monitor Room	
Floor(s):	4F	Associated Safety Division(s)	A	
Fig:	9A-8			
Sect:	3.963			

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MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-414-01	FA2-4042-01	FA2-414-01
	FA2-501-02		FA2-601-01
	FA2-504-01		FA2-601-02
	FA2-507-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.2E+07
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.3E+04
Maximum Anticipated Combustible Loading:	5.1E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of 2 safe-shutdown train. Two trains remain free from the fire damage.

Floor Area (ft ²)
600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 188 of 306)

Fire Zone: FA2-508-01	Building: Reactor	Area Designation: FA2-508 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 4F	Zone Designation: MG Set Room		
Fig: 9A-8	Associated Safety Division(s): GD		
Sect: 3.6397			

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-415-01	FA2-4034-01	Roof
	FA2-502-01		
	FA2-508-02	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	2.0E+06
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.1E+04

Floor Area (ft ²)
600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 189 of 306)

Fire Zone: FA2-508-02	Area Designation: FA2-508 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Reactor	Zone Designation: MG Set Control Panel Room	
Floor(s): 4F	Associated Safety Division(s): GD	
Fig: 9A-8		
Sect: 3.6397		

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-502-01	FA2-4034-01	FA2-604-01
	FA2-503-01	See Table 9A-3	Roof
	FA2-508-01		
FA2-509-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	7.9E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.0E+03
Maximum Anticipated Combustible Loading:	5.2E+03

Floor Area (ft ²)
200

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 190 of 306)

Fire Zone: **FA2-509-01**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.6398**

Area Designation: **FA2-509 Area**

Zone Designation: **FA2-509-01 Non-Radioactive Zone Westside Corridor**

Associated Safety Division(s) **A,B,C,D**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-24	FA2-415-01	FA2-415-01
	FA2-110-01	FA2-419-01	FA2-602-01
	FA2-415-01	FA2-423-01	FA2-604-01
	FA2-502-01	See Table 9A-3	Roof

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.1E+06
High Voltage Cables	9.8E+06
Low Voltage Cables	7.3E+06
Control Cables	1.3E+07
Instrumentation Cables	1.1E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage 4 trains of remote safe shutdown functions, but plant operation can be controlled from Main Control Board.

Floor Area (ft ²)
1,9500

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.67E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 191 of 306)

Fire Zone: **FA2-510-01**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.6399**

Area Designation: **FA2-510 Area**

Zone Designation: **LRT Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **GD**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-24	FA2-410-01	Roof
FA2-410-02		
FA2-415-01		
FA2-509-01		
FA2-510-02		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	2.4E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.7E+02
Maximum Anticipated Combustible Loading:	1.1E+03

Floor Area (ft ²)	350
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe shutdown functions associated with safety train C. Train A, B and D remain free from the damage. There is <u>no safe-shutdown circuit in this zone to be damaged.</u>

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 192 of 306)

Fire Zone:	FA2-510-02	Area Designation:	FA2-510 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	CRDM Cabinet Room	
Floor(s):	4F	Associated Safety Division(s)	GD	
Fig:	9A-8			
Sect:	3.6399			

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-214-07	FA2-407-03	Roof
	FA2-210-24	FA2-410-01	See Table 9A-3
	FA2-410-02	FA2-42219-01	
	FA2-509-01	FA2-4232-01	
FA2-510-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Lighting Transformer	6.6E+05
Panels	4.7E+06
High Voltage Cables	5.3E+06
Low Voltage Cables	4.0E+06
Control Cables	7.1E+06
Instrumentation Cables	6.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.8E+04
Maximum Anticipated Combustible Loading:	3.4E+04

Floor Area (ft ²)
1,000

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe shutdown functions associated with safety train C. Train A, B and D remain free from the damage. There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 193 of 306)

Fire Zone:	FA2-511-01
Building:	Reactor
Floor(s):	4F
Fig:	9A-8
Sect:	3.1800

Area Designation:	R/B-4F Penetration Area (FA2-511)
Zone Designation:	R/B-4F Penetration Area (FA2-511-01)

Applicable Regulatory and Code Ref(s):	IBC, RG 1.189; NFPA 10, 14, 72 and 804
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Associated Safety Division(s)	D
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MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-25	FA2-411-01	Roof
	FA2-210-16	See Table 9A-3	
	FA2-210-17		
	<u>FA2-214-05</u>		
<u>FA2-214-05</u>			

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

MIC-03-09-00015

Potential Combustibles	
Item	Heat Release (Btu)
Grease	3.3E+06
High Voltage Cables	4.2E+06
Low Voltage Cables	3.2E+06
Control Cables	5.6E+06
Instrumentation Cables	4.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Floor Area (ft ²)
850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 194 of 306)

Fire Zone: **FA2-512-01**

Building: **Reactor**

Floor(s): **4F, Roof**

Fig: **9A-8, 9A-9**

Sect: **3.63101**

Area Designation: **B-Emergency Feedwater Pit**

Zone Designation: **B-Emergency Feedwater Pit**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **NC, D**

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-415-01	FA2-4043-01	Roof
FA2-508-01	See Table 9A-3	
FA2-508-02		
FA2-509-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety related equipment consistent with GDC 3. Manual fire hose stations and portable fire extinguishers are available in the vicinity.	There is no safe-shutdown circuit in this zone to be damaged.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	7.2E+01

Floor Area (ft ²)
1,300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 195 of 306)

Fire Zone: **FA2-513-01**

Building: **Reactor**

Floor(s): **4F**

Fig: **9A-8**

Sect: **3.63102**

Area Designation: **FA2-513 Area**

Zone Designation: **FA2-513-01 Zone**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-210-15 FA2-409-02 FA2-507-01	FA2-420-02	FA2-601-02

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.7E+02

Floor Area (ft ²)
250

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 196 of 306)

Fire Zone:	FA2-601-01	Area Designation:	FA2-601 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	A-CCW Surge Tank Room	
Floor(s):	Roof	Associated Safety Division(s)	B	
Fig:	9A-9			
Sect:	3.68103			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-414-01	FA2-504-01	Roof
	FA2-501-02	FA2-507-02	
	FA2-601-02		
	FA2-603-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	4.8E+05
High Voltage Cables	1.6E+06
Low Voltage Cables	1.2E+06
Control Cables	2.1E+06
Instrumentation Cables	1.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the functions of A, B safeshutdown train. C, D trains remain free from the fire damage.

Floor Area (ft ²)
300

Table 9A-2 Fire Hazard Analysis Summary (Sheet 197 of 306)

Fire Zone:	FA2-601-02	Area Designation:	FA2-601 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	C/V Purge Air Handling Unit Room	
Floor(s):	Roof	Associated Safety Division(s)	B	
Fig:	9A-9			
Sect:	3.6103			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA1-101-23	FA2-210-15	Roof
	FA2-101-01	FA2-409-02	See Table 9A-3
	FA2-414-01	FA2-504-01	
	FA2-507-01	FA2-507-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	2.7E+06
Instruments	5.6E+06
Panels	8.3E+04
High Voltage Cables	1.5E+07
Low Voltage Cables	1.1E+07
Control Cables	1.9E+07
Instrumentation Cables	1.7E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.1E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the few functions of 2 safeshutdown train. Two trains remain free from the fire damage.

Floor Area (ft ²)
2,700

Table 9A-2 Fire Hazard Analysis Summary (Sheet 198 of 306)

Fire Zone:	FA2-602-01	Area Designation:	B-CCW Surge Tank Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	B-CCW Surge Tank Room	
Floor(s):	Roof	Associated Safety Division(s)	C	
Fig:	9A-9			
Sect:	3.69104			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-110-01 FA2-604-01	FA2-503-01 FA2-509-01	Roof

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Instruments	7.9E+05
High Voltage Cables	2.4E+06
Low Voltage Cables	1.8E+06
Control Cables	3.2E+06
Instrumentation Cables	2.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.7E+04
Maximum Anticipated Combustible Loading:	3.3E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the functions of C, D safeshutdown train. A, B trains remain free from the fire damage.

Floor Area (ft ²)
400

Table 9A-2 Fire Hazard Analysis Summary (Sheet 199 of 306)

Fire Zone:	FA2-603-01	Area Designation:	FA2-603 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Reactor	Zone Designation:	FA2-603-01 Area	
Floor(s):	Roof	Associated Safety Division(s)	A	
Fig:	9A-9			
Sect:	3.68105			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-501-02	FA2-507-01	Roof	
	FA2-601-01			
	FA2-601-02			

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	4.0E+05
High Voltage Cables	1.3E+06
Low Voltage Cables	9.9E+05
Control Cables	1.8E+06
Instrumentation Cables	1.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
250

Table 9A-2 Fire Hazard Analysis Summary (Sheet 200 of 306)

Fire Zone: **FA2-604-01**

Building: **Reactor**

Floor(s): **Roof**

Fig: **9A-9**

Sect: **3.1068**

Area Designation: **FA2-604 Area**

Zone Designation: **FA2-604-01 Area**

Associated Safety Division(s) **D**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-110-01	FA2-508-02	Roof
FA2-505-01	FA2-509-01	
FA2-509-01		
FA2-512-01		
FA2-602-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	4.0E+05
High Voltage Cables	1.3E+06
Low Voltage Cables	9.9E+05
Control Cables	1.8E+06
Instrumentation Cables	1.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Floor Area (ft ²)
250

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 201 of 306)

Fire Zone: FA3-101-01	Building: Power Source	Area Designation: A-Essential Chiller Unit & Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F, B1MF	Zone Designation: A-Essential Chiller Unit & Pump Room		
Fig: 9A-11	Associated Safety Division(s): A		
Sect: 3.1079			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-01	<u>FA3-104-02</u>	<u>FA3-103-02</u>
	FA2-102-01	FA3-106-01	FA3-103-03
	FA2-111-01	<u>FA3-128-01</u>	FA3-104-04 2
	FA3-102-01	FA7-101-01	<u>FA3-104-03</u>
	<u>FA3-103-02</u>		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.4E+06
Lube Oil	2.0E+06
Panels	5.6E+05
High Voltage Cables	6.3E+06
Low Voltage Cables	4.8E+06
Control Cables	8.5E+06
Instrumentation Cables	7.4E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.65E+04
Maximum Anticipated Combustible Loading:	3.40E+04

Floor Area (ft ²)
1,2050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to cause functional damage of safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 202 of 306)

Fire Zone: FA3-102-01	Building: Power Source	Area Designation: B-Essential Chiller Unit & Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F, B1MF		Zone Designation: B-Essential Chiller Unit & Pump Room	
Fig: 9A-11		Associated Safety Division(s): B	
Sect: 3.7108			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-02	FA3-106-04	FA3-103-03
	FA2-111-01	FA7-1028-01	FA3-104-03
	FA3-101-01		
	FA3-1036-01		
	FA3-103-02		
	FA3-104-04		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.4E+06
Lube Oil	2.0E+06
Panels	5.6E+05
High Voltage Cables	6.3E+06
Low Voltage Cables	4.8E+06
Control Cables	8.5E+06
Instrumentation Cables	7.4E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.65E+04
Maximum Anticipated Combustible Loading:	3.40E+04

Floor Area (ft ²)
1,2050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to cause functional damage of safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 203 of 306)

Fire Zone: FA3-103-01	Building: Power Source	Area Designation: B-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F, B1MF	Zone Designation: B-GTG Auxiliary Component Room		
Fig: 9A-11	Associated Safety Division(s): B		
Sect: 3.72109			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-102-04	<u>FA3-127-01</u>	FA3-103-034
	FA3-103-02	<u>FA3-1428-01</u>	FA3-104-03
	FA3-104-01		FA3-118-01
	<u>FA3-105-03</u>		
	FA3-106-01		
	<u>FA3-118-01</u>		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-103-02) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	4.0E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible Loading:	8.8E+02

Floor Area (ft ²)
650

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safeshutdown.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 204 of 306)

Fire Zone: FA3-103-02	Area Designation: B-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: B-GTG Fuel Piping Area	
Floor(s): B1MF	Associated Safety Division(s): B	
Fig: 9A-11		
Sect: 3.72109		

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MIC-03-09-00015

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-102-01	FA3-104-01	FA3-104-03
	FA3-103-04	See Table 9A-3	
	FA3-104-02		
	FA3-119-04		
	FA3-128-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-103-01) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	34.7E+023

Floor Area (ft ²)
260

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 205 of 306)

Fire Zone:	FA3-103-03	Area Designation:	B-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source	Zone Designation:	B-Class 1E GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	B	
Fig:	9A-12			
Sect:	3.72109			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-101-01	FA3-101-01	Roof
	FA2-201-01	FA3-102-01	See Table 9A-3
	FA3-320-01	FA3-103-01 2	
	FA3-104-03	FA3-106 4 -01 2	
FA3-130-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.2E+06
Lube Oil	3.1+E08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.3E+07
Low Voltage Cables	9.5E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07
Fuel Oil	1.2E+08
Fuel Oil(light Oil)	2.1E+07
Instruments	8.8E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.43.0E+05
Maximum Anticipated Combustible Loading:	2.63.6E+05

Floor Area (ft ²)
2,400
1,600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire has the potential to cause functional damage of safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safeshutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 206 of 306)

Fire Zone: FA3-103-04	Area Designation: B-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: B-Class 1E Gas Turbine Generator Control Board Room	
Floor(s): 1E	Associated Safety Division(s): B	
Fig: 9A-12		
Sect: 3.109		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone in this area.
	FA3-104-04	FA3-103-01	FA3-104-03	
	FA3-105-02	FA3-104-01	Roof	
	FA3-130-01	FA3-118-01	FA3-127-01	

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.2E+06
Low Voltage Cables	7.0E+06
Control Cables	8.9E+06
Instrumentation Cables	7.8E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

Floor Area (ft ²)
1.100

Table 9A-2 Fire Hazard Analysis Summary (Sheet 207 of 306)

Fire Zone: FA3-104-01	Building: Power Source	Area Designation: A-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F, B1MF	Zone Designation: A-GTG Auxiliary Component Room		
Fig: 9A-11	Associated Safety Division(s): A		
Sect: 3.73110			

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MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	FA3-102-01	Floor/Wall	FA3-129-01	Ceiling	FA3-103-024
		FA3-103-01				FA3-104-024
		FA3-106-01				FA3-1198-01
		FA3-118-01				FA3-129-01
		FA3-128-01				

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-104-02) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	4.0E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible Loading:	8.8E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

Floor Area (ft ²)
650

Table 9A-2 Fire Hazard Analysis Summary (Sheet 208 of 306)

Fire Zone: FA3-104-02	Building: Power Source	Area Designation: A-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F	Zone Designation: A-GTG Fuel Piping Area		
Fig: 9A-11	Associated Safety Division(s): A		
Sect: 3.73110			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-101-01	FA3-1041-01	FA3-103-03
	FA3-103-02		FA3-104-03
	FA3-119-04		
	FA7-404-04		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-104-01) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.319E+023

Floor Area (ft ²)
4050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 209 of 306)

Fire Zone:	FA3-104-03	Area Designation:	A-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	A-Class 1E GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	A	
Fig: Sect:	9A-12 3.73.110			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-102-01	FA3-101-01	Roof
	FA2-201-01	FA3-103-01	
	FA2-202-01	FA3-1034-02	See Table 9A-3
	FA3-103-03		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.3E+06
Lube Oil	3.1E+08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.3E+07
Low Voltage Cables	9.5E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07
Fuel Oil	1.2E+08
Fuel Oil(light Oil)	2.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	23.1E+05
Maximum Anticipated Combustible Loading:	2.63.7E+05

Floor Area (ft ²)
2,400
1,550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to damage the safeshutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 210 of 306)

Fire Zone: FA3-104-04	Area Designation: A-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: A-Class 1E Gas Turbine Generator Control Board Room	
Floor(s): 1E	Associated Safety Division(s): A	
Fig: 9A-12		
Sect: 3.110		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone in this area.
	FA3-103-04	FA3-104-01	FA3-104-03	
	FA3-104-03	FA3-129-01	Roof	
	FA3-105-02			
	FA3-130-01			

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.2E+06
Low Voltage Cables	7.0E+06
Control Cables	8.9E+06
Instrumentation Cables	7.8E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	3.6E+04
Maximum Anticipated Combustible Loading:	4.3E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

Floor Area (ft ²)
750

Table 9A-2 Fire Hazard Analysis Summary (Sheet 211 of 306)

Fire Zone: FA3-105-01	Area Designation: A-AAC GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: A-AAC Power Source Starter Battery Room	
Floor(s): B1MF		
Fig: 9A-11	Associated Safety Division(s): N	
Sect: 3.74111		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-104-02	FA3-1016-01	FA3-105-02
	FA3-105-03	FA3-115-04	
	FA3-106-04		
	FA3-117-04		
	FA3-125-01		
	FA3-1429-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.0E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.075E+043
Maximum Anticipated Combustible Loading:	49.2E+043

Floor Area (ft ²)
3400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 212 of 306)

Fire Zone:	FA3-105-02	Area Designation:	A-AAC GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	A-AAC GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	NA	
Fig:	9A-12			
Sect:	3.74111			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-103-03	FA3-105-01	Roof
	FA3-104-03	FA3-105-03	See Table 9A-3
	FA3-106-04	FA3-106-04	
	FA3-125-04	FA3-117-01	
	FA2-151-03	FA3-1169-01	
	FA2-151-04		
FA2-154-05			
FA2-316-01			

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Battery	3.4E+07
Instruments	1.3E+06
Lube Oil	3.1E+08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.0E+07
Low Voltage Cables	7.7E+06
Control Cables	1.4E+07
Instrumentation Cables	1.2E+07
Fuel Oil	1.2E+08
Fuel Oil(light Oil)	2.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
2,40350

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.52E+05
Maximum Anticipated Combustible Loading:	3.02.7E+05

Table 9A-2 Fire Hazard Analysis Summary (Sheet 213 of 306)

Fire Zone: FA3-105-03	Area Designation: A-AAC GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building: Power Source	Zone Designation: A-AAC Fuel Piping Room	
Floor(s): B1MF	Associated Safety Division(s): N	
Fig: 9A-12		
Sect: 3.74111		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-103-01	FA3-1156-01	FA3-105-02
	FA3-105-01	FA3-113-01	<u>See Table 9A-3</u>
	FA7-403-04		
	FA3-125-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+03

Floor Area (ft ²)
50

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly identified and extinguished fire in this room would minimize the damage to room and undesirable impact on plant operation.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 214 of 306)

Fire Zone: **FA3-106-01**

Building: **Power Source**

Floor(s): **B1F to 1F**

Fig: **9A-11, 9A-12**

Sect: **3.75112**

Area Designation: **FA3-106 Area**

Zone Designation: **FA3-106-01 Corridor**

Associated Safety Division(s) **BN**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA2-111-01	FA3-116-04	FA3-103-03
FA3-104-04	<u>FA3-103-01</u>	FA3-105-04
<u>FA2-114-03</u>	<u>FA3-104-01</u>	FA3-105-02
FA3-102-01	See Table 9A-3	FA3-1427-01
FA3-103-01		<u>FA3-128-01</u>
		<u>FA3-129-01</u>
		<u>FA3-130-01</u>

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	6.955E+01

Floor Area (ft ²)
1,36700

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to cause functional damage of safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 215 of 306)

Fire Zone: FA3-108-01	Building: Power Source	Area Designation: C-Essential Chiller Unit & Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F, B1MF		Zone Designation: C-Essential Chiller Unit & Pump Room	
Fig: 9A-11			
Sect: 3.77113	Associated Safety Division(s): C		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-109-01	FA3-112-01	FA3-109-03	
	FA3-109-02	FA7-103-01	FA3-111-03	
	FA3-110-01	FA7-104-01		
	FA3-111-01			

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Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.4E+06
Lube Oil	2.0E+06
Panels	5.6E+05
High Voltage Cables	6.3E+06
Low Voltage Cables	4.8E+06
Control Cables	8.5E+06
Instrumentation Cables	7.4E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this zone has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.65E+04
Maximum Anticipated Combustible Loading:	3.40E+04

Floor Area (ft ²)
1,2050

Table 9A-2 Fire Hazard Analysis Summary (Sheet 216 of 306)

Fire Zone:	FA3-109-01	Area Designation:	C-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source	Zone Designation:	C-GTG Auxiliary Component Room	
Floor(s):	B1F, B1MF	Associated Safety Division(s)	C	
Fig:	9A-11			
Sect:	3.78114			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-108-01	FA3-122-01	FA3-109-03
	FA3-109-02		FA3-111-03
	FA3-111-01		FA3-122-01
	FA3-112-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-109-02) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	4.0E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible Loading:	8.8E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage to achieve safeshutdown.

Floor Area (ft ²)
650

Table 9A-2 Fire Hazard Analysis Summary (Sheet 217 of 306)

Fire Zone:	FA3-109-02	Area Designation:	C-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source	Zone Designation:	C-GTG Fuel Piping Area	
Floor(s):	B1MF	Associated Safety Division(s)	C	
Fig:	9A-11			
Sect:	3.78114			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-108-01	FA3-111-01	FA3-113-03
	FA3-109-01	See Table 9A-3	
	FA3-111-02		
	FA3-124-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-109-01) in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.73E+02

Floor Area (ft ²)
350

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage to achieve safeshutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 218 of 306)

Fire Zone:	FA3-109-03	Area Designation:	C-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	C-Class 1E GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	C	
Fig: Sect:	9A-12 3.78114			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-110-01	FA3-111-01	FA3-114-01
	FA2-206-01	FA3-109-01	Roof
	FA3-111-03	FA3-110-01	See Table 9A-3
	FA3-113-02	FA3-112-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.3E+06
Lube Oil	3.1E+08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.3E+07
Low Voltage Cables	9.5E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07
Fuel Oil	1.2E+08
Fuel Oil (Light Oil)	2.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.419E+05
Maximum Anticipated Combustible Loading:	2.52E+05

Floor Area (ft ²)
2,4700

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 219 of 306)

Fire Zone:	FA3-110-01	Area Designation:	D-Essential Chiller Unit & Pump Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source	Zone Designation:	D-Essential Chiller Unit & Pump Room	
Floor(s):	B1F, B1MF	Associated Safety Division(s)	D	
Fig:	9A-11			
Sect:	3.79115			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-108-01	FA3-112-01	FA3-109-03	
	FA2-110-01	FA7-104-01	FA3-111-03	
	FA2-112-01			
	FA3-108-01			

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.4E+06
Lube Oil	2.0E+06
Panels	5.6E+05
High Voltage Cables	6.3E+06
Low Voltage Cables	4.8E+06
Control Cables	8.5E+06
Instrumentation Cables	7.4E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)	1,2400
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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.62E+04
Maximum Anticipated Combustible Loading:	3.427E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 220 of 306)

Fire Zone: FA3-111-01	Area Designation: D-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: D-GTG Auxiliary Component Room	
Floor(s): B1F, B1MF		
Fig: 9A-11	Associated Safety Division(s): D	
Sect: 3.80116		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-108-01	-	FA3-109-02
	FA3-109-01		FA3-111-02
	FA3-112-01		FA3-124-01
	FA7-104-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-111-02) in this fire area.

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Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	4.0E+05

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible Loading:	8.8E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)
650

Table 9A-2 Fire Hazard Analysis Summary (Sheet 221 of 306)

Fire Zone: FA3-111-02	Area Designation: D-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: D-GTG Fuel Piping Area	
Floor(s): B1F	Associated Safety Division(s): D	
Fig: 9A-11		
Sect: 3.80116		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-02	FA3-111-01	FA3-113-03
	FA3-413-04	<u>FA3-112-01</u>	
	FA3-124-01		
	FA7-405-04		
	<u>FA3-131-04</u>		
	<u>FA7-104-01</u>		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone (FA3-111-01) in this fire area.

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.90E+03

Floor Area (ft ²)
5100

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 222 of 306)

Fire Zone:	FA3-111-03	Area Designation:	D-Class 1E GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	D-Class 1E GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	D	
Fig:	9A-12			
Sect:	3.80116			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-108-01	FA3-108-01	FA3-109-03
	FA3-109-03	FA3-109-01	FA3-114-01
	FA2-205-01	FA3-110-01	Roof
	FA3-206-01	FA3-109-02	See Table 9A-3

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.3E+06
Lube Oil	3.1E+08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.3E+07
Low Voltage Cables	9.5E+06
Control Cables	1.7E+07
Instrumentation Cables	1.5E+07
Fuel Oil	1.2E+08
Fuel Oil (Light Oil)	2.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.418E+05
Maximum Anticipated Combustible Loading:	2.51E+05

Floor Area (ft ²)
2,40850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in this area would minimize damage to safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 223 of 306)

Fire Zone: **FA3-112-01**
 Building: **Power Source**
 Floor(s): **B1F to 1F**
 Fig: **9A-11, 9A-12**
 Sect: **3.84117**

Area Designation: **FA3-112 Area**
 Zone Designation: **FA3-112-01 Corridor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **C**

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Adjacent Fire Zones:
 (Primary Inter face
 Listed See Table 9A-3
 For Complete Listing)

Wall	Floor	Ceiling
FA2-112-01	FA3-120-01	FA3-109-03
FA3-108-01	FA3-134-01	FA3-113-04
FA3-109-01	See Table 9A-3	FA3-111-02
FA3-110-01		FA3-113-02
		FA3-123-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	6.974E+01

Floor Area (ft ²)
1,3250

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 224 of 306)

Fire Zone: **FA3-113-01**

Building: **Power Source**

Floor(s): **B1MF**

Fig: **9A-11**

Sect: **3.82118**

Area Designation: **B-AAC GTG Room**

Zone Designation: **B-AAC Power Source Starter Battery Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-111-02	FA3-112-04	FA3-113-02
FA3-112-04	FA3-121-01	
FA3-113-03	<u>FA3-135-01</u>	
FA3-123-01		
FA3-124-04		
<u>FA3-131-01</u>		
<u>FA7-104-01</u>		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	3.0E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.085E+043
Maximum Anticipated Combustible Loading:	1.21E+04

Floor Area (ft ²)
3050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 225 of 306)

Fire Zone:	FA3-113-02	Area Designation:	B-AAC GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	B-AAC GTG Room	
Floor(s):	1F, Roof	Associated Safety Division(s)	C	
Fig:	9A-12			
Sect:	3.82118			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-03	FA3-112-01	FA3-109-03
	FA3-111-03	FA3-113-01	Roof
	FA3-112-01	FA3-113-03	See Table 9A-3
	FA3-126-01	FA3-120-01	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Battery	3.4E+07
Instruments	1.3E+06
Lube Oil	3.1E+08
Panels	3.2E+06
Rubber	1.9E+05
High Voltage Cables	1.0E+07
Low Voltage Cables	7.7E+06
Control Cables	1.4E+07
Instrumentation Cables	1.2E+07
Fuel Oil	1.2E+08
Fuel Oil (Light Oil)	2.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.51E+05
Maximum Anticipated Combustible Loading:	3.026E+05

Floor Area (ft ²)
2,40450

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 226 of 306)

Fire Zone:	FA3-113-03	Area Designation:	B-AAC GTG Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	B-AAC Fuel Piping Room	
Floor(s):	B1MF	Associated Safety Division(s)	N	
Fig:	9A-12			
Sect:	3.74118			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-113-01	FA3-121-01	FA3-113-02
	FA3-123-01		
	FA7-406-04		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance. This zone has unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+03

Floor Area (ft ²)
50

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 227 of 306)

Fire Zone: FA3-114-01	Building: Power Source	Area Designation: Cable Tray Space	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 1MF	Zone Designation: Cable Tray Space		
Fig: 9A-12	Associated Safety Division(s): N		
Sect: 3.83119			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA2-108-01	FA3-109-03	Roof	
	FA2-110-01	FA3-111-03		
	FA2-321-01			
	FA3-109-03		See Table 9A-3	

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	7.1E+06
Low Voltage Cables	3.4E+07
Control Cables	7.6E+07
Instrumentation Cables	1.7E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
1,55700

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	8.67.9E+04
Maximum Anticipated Combustible Loading:	4.09.5E+05

Table 9A-2 Fire Hazard Analysis Summary (Sheet 228 of 306)

Fire Zone: FA3-115-01	Building: Power Source	Area Designation: A-Class 1E Battery Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F		Zone Designation: A-Class 1E Battery Room	
Fig: 9A-11		Associated Safety Division(s): A	
Sect: 3.84120			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-106-01	-	FA3-106-01
	FA2-121-01		FA3-105-03
	FA3-116-01		FA3-117-01
	FA3-132-01		FA3-129-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06
Battery	5.7E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.2E+05
Maximum Anticipated Combustible Loading:	1.4E+05

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 229 of 306)

Fire Zone: **FA3-116-01**
 Building: **Power Source**
 Floor(s): **B1F**
 Fig: **9A-11**
 Sect: **3.86121**

Area Designation: **B-Class 1E Battery Room**
 Zone Designation: **B-Class 1E Battery Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-106-01 FA3-115-01 FA3-133-01	-	FA3-105-021 FA3-1065-043 FA3-125-01

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06
Battery	5.7E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.2E+05
Maximum Anticipated Combustible Loading:	1.4E+05

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 230 of 306)

Fire Zone: FA3-117-01	Building: Power Source	Area Designation: A-Class 1E Battery Charger Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1MF	Zone Designation: A-Class 1E Battery Charger Room		
Fig: 9A-11	Associated Safety Division(s): A		
Sect: 3.86122			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-106-04	FA3-106-01	FA3-105-02
	FA3-106-03	FA3-115-01	
	FA3-106-04	<u>FA3-132-01</u>	
	<u>FA2-114-03</u>	See Table 9A-3	
	<u>FA2-121-01</u>		
	<u>FA2-154-02</u>		
<u>FA3-119-01</u>			
<u>FA3-118-01</u>			

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Control Center and Inverter	4.3E+06
Instruments	2.6E+05
Panels	3.9E+05
Transformer	2.5E+06
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.7 <u>3.3</u> E+04
Maximum Anticipated Combustible Loading:	5.7 <u>4.0</u> E+04

Floor Area (ft ²)
3500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the functions of A, B safeshutdown trains. C, D trains remain free from fire damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 231 of 306)

Fire Zone: **FA3-118-01**
 Building: **Power Source**
 Floor(s): **B1MF**
 Fig: **9A-11**
 Sect: **3.87123**

Area Designation: **B-Class 1E Battery Charger Room**
 Zone Designation: **B-Class 1E Battery Charger Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **B**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-103-01	FA3-103-01	FA3-103-034
FA3-1064-01	<u>FA3-104-01</u>	FA3-104-03
FA3-117-01		<u>See Table 9A-3</u>
FA3-119-01		
<u>FA3-105-03</u>		
<u>FA3-127-01</u>		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Control Center and Inverter	3.9E+06
Instruments	2.6E+05
Panels	3.9E+05
Transformer	2.5E+06
High Voltage Cables	1.9E+06
Low Voltage Cables	1.4E+06
Control Cables	2.5E+06
Instrumentation Cables	2.2E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.0 3.7E+04
Maximum Anticipated Combustible Loading:	6.0 4.5E+04

Floor Area (ft²)
3400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 232 of 306)

Fire Zone: FA3-119-01	Area Designation: Spare Battery Charger-1 Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: Spare Battery Charger-1 Room	
Floor(s): B1MF	Associated Safety Division(s): A	
Fig: 9A-11		
Sect: 3.88124		

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MIC-03-09-00015

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA3-103-02	FA3-104-04	FA3-104-5-032	
	FA3-104-02	<u>FA3-132-01</u>		
	FA3-105-04	See Table 9A-3		
	FA3-106-04			
	<u>FA2-114-03</u>			
	<u>FA2-154-02</u>			
	<u>FA3-117-01</u>			
	<u>FA3-129-01</u>			

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.0E+05
Transformer	2.5E+06
Inverter	2.7E+06
High Voltage Cables	1.3E+06
Low Voltage Cables	9.9E+05
Control Cables	1.8E+06
Instrumentation Cables	1.5E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.54.4E+04
Maximum Anticipated Combustible Loading:	6.65.3E+04

Floor Area (ft ²)	2050
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A in this fire zone has the fire potential to cause functional damage of safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 233 of 306)

Fire Zone:	FA3-120-01	Area Designation:	C-Class 1E Battery Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source	Zone Designation:	C-Class 1E Battery Room	
Floor(s):	B1F	Associated Safety Division(s)	C	
Fig:	9A-11			
Sect:	3.89125			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-112-01		FA3-112-01
	FA3-121-01		FA3-113-02
	FA3-134-01		FA3-126-01
	FA4-101-01		
	FA4-101-22		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06
Battery	5.7E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.2E+05
Maximum Anticipated Combustible Loading:	1.4E+05

Floor Area (ft ²)
600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 234 of 306)

Fire Zone: FA3-121-01	Building: Power Source	Area Designation: D-Class 1E Battery Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1F	Zone Designation: D-Class 1E Battery Room		
Fig: 9A-11	Associated Safety Division(s): D		
Sect: 3.90126			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.
	FA3-112-01	-	FA3-113-01	
	FA3-120-01		FA3-113-03	
	FA3-135-01		FA3-123-01	
	FA7-104-01			

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	3.2E+06
Low Voltage Cables	2.4E+06
Control Cables	4.2E+06
Instrumentation Cables	3.7E+06
Battery	5.7E+07

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.21E+05
Maximum Anticipated Combustible Loading:	1.43E+05

Floor Area (ft ²)
6050

Table 9A-2 Fire Hazard Analysis Summary (Sheet 235 of 306)

Fire Zone: **FA3-122-01**
 Building: **Power Source**
 Floor(s): **B1MF**
 Fig: **9A-11**
 Sect: **3.94127**

Area Designation: **C-Class 1E Battery Charger Room**
 Zone Designation: **C-Class 1E Battery Charger Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **C**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-01	FA3-109-01	FA3-109-03
	FA3-112-01	FA3-122-01	FA3-111-03
	FA3-123-01		
	FA3-124-01		
	FA3-131-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

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Potential Combustibles	
Item	Heat Release (Btu)
Control Center and Inverter	3.9E+06
Instruments	2.6E+05
Panels	3.9E+05
Transformer	2.5E+06
High Voltage Cables	1.9E+06
Low Voltage Cables	1.4E+06
Control Cables	2.5E+06
Instrumentation Cables	2.2E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.027E+04
Maximum Anticipated Combustible Loading:	6.033E+04

Floor Area (ft²)
3050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 236 of 306)

Fire Zone: **FA3-123-01**

Building: **Power Source**

Floor(s): **B1MF**

Fig: **9A-11**

Sect: **3.92128**

Area Designation: **D-Class 1E Battery Charger Room**

Zone Designation: **D-Class 1E Battery Charger Room**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **D**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-112-01	FA3-112-01	FA3-113-02
FA3-113-01	FA3-121-01	
FA3-113-03	<u>FA3-135-01</u>	
FA3-122-01	See Table 9A-3	
<u>FA3-126-01</u>		
<u>FA3-131-01</u>		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Control Center and Inverter	4.3E+06
Instruments	2.6E+05
Panels	3.9E+05
Transformer	2.5E+06
High Voltage Cables	2.1E+06
Low Voltage Cables	1.6E+06
Control Cables	2.8E+06
Instrumentation Cables	2.5E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	43.7E+04
Maximum Anticipated Combustible Loading:	67.44E+04

Floor Area (ft ²)	3450
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety train C, D. Train A, B remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 237 of 306)

Fire Zone: FA3-124-01	Building: Power Source	Area Designation: Spare Battery Charger-2 Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): B1MF	Zone Designation: Spare Battery Charger-2 Room		
Fig: 9A-11	Associated Safety Division(s): D		
Sect: 3.93129			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-02	FA3-112-01	FA3-111-03
	FA3-111-02	FA3-112-01	
	FA3-1422-01	See Table 9A-3	

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.0E+05
Transformer	2.5E+06
Inverter	2.7E+06
High Voltage Cables	1.3E+06
Low Voltage Cables	9.9E+05
Control Cables	1.8E+06
Instrumentation Cables	1.5E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.63.1E+04
Maximum Anticipated Combustible Loading:	6.63.8E+04

Floor Area (ft ²)	20350
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to cause functional damage of safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 238 of 306)

Fire Zone: FA3-125-01	Building: Power Source	Area Designation: A-AAC Selector Circuit Panel Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Floor(s): B1MF	Zone Designation: A-AAC Selector Circuit Panel Room		
Fig: 9A-12	Associated Safety Division(s): B		
Sect: 3.74130			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-105-021	FA3-116-01	FA3-105-02
	FA3-106-04	<u>FA3-133-01</u>	
	<u>FA3-105-03</u>		
	FA3-1427-01		
	<u>FA3-129-01</u>		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and control centers	7.7E+06
High Voltage Cables	2.4E+06
Low Voltage Cables	1.8E+06
Control Cables	3.2E+06
Instrumentation Cables	2.8E+06

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.90E+04
Maximum Anticipated Combustible Loading:	4.73.6E+04

Floor Area (ft ²)
4600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to cause functional damage of safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 239 of 306)

Fire Zone:	FA3-126-01	Area Designation:	B-AAC Selector Circuit Panel Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Power Source	Zone Designation:	B-AAC Selector Circuit Panel Room	
Floor(s):	B1MF	Associated Safety Division(s)	C	
Fig:	9A-12			
Sect:	3.74131			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-112-01	FA3-120-01	FA3-113-02
	FA3-113-02	FA3-134-01	
	FA3-123-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and control centers	7.7E+06
High Voltage Cables	2.4E+06
Low Voltage Cables	1.8E+06
Control Cables	3.2E+06
Instrumentation Cables	2.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.90E+04
Maximum Anticipated Combustible Loading:	4.73.6E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire in this fire zone has the potential to cause functional damage of safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
4600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 240 of 306)

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Fire Zone: FA3-127-01	Area Designation: FA3-127 Stairwell	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: FA3-127-01 Stairwell	
Floor(s): B1F, B1MF	Associated Safety Division(s): B	
Fig: 9A-11		
Sect: 3.132		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance.
	FA3-103-01	FA3-106-01	FA3-103-04	
	FA3-105-03	See Table 9A-3		
	FA3-106-01			
	FA3-118-01			

Potential Combustibles	
Item	Heat Release (Btu)

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.7E+02

Fire Impact to Zone	
Suppression System Operates A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	Suppression System Fails to Op. A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

Floor Area (ft ²)
250

Table 9A-2 Fire Hazard Analysis Summary (Sheet 241 of 306)

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Fire Zone:	FA3-128-01	Area Designation:	FA3-128 Piping Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source (East)	Zone Designation:	FA3-128-01 Piping Room	
Floor(s):	B1F, B1MF	Associated Safety Division(s):	B	
Fig:	9A-11			
Sect:	3.133			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>	<u>Fire Barrier Description:</u> Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance.
	FA3-101-01	FA3-106-01	FA3-103-03	
	FA3-102-01	See Table 9A-3	FA3-130-01	
	FA3-103-01			
	FA3-103-02			

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>

<u>Fire Detection – Primary</u> Manual Fire Alarm Pull Station	<u>Fire Detection - Backup</u>
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	nil
<u>Maximum Anticipated Combustible Loading:</u>	1.2E+02

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

<u>Floor Area (ft²)</u>
800

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 242 of 306)

Fire Zone: FA3-129-01	Area Designation: FA3-129 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: FA3-129-01 Corridor	
Floor(s): B1MF	Associated Safety Division(s): A	
Fig: 9A-11		
Sect: 3.134		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>
	FA2-114-03	FA3-104-01	FA3-104-04
	FA2-154-02	FA3-106-01	FA3-105-02
	FA3-104-01	FA3-115-01	FA3-130-01
	FA3-105-01	See Table 9A-3	

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance.

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

<u>Floor Area (ft²)</u>
1.050

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	nil
<u>Maximum Anticipated Combustible Loading:</u>	8.9E+01

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 243 of 306)

Fire Zone: FA3-130-01	Area Designation: FA3-130 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: FA3-130-01 Corridor	
Floor(s): 1F	Associated Safety Division(s): B	
Fig: 9A-12		
Sect: 3.135		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>	<u>Fire Barrier Description:</u> Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance.
	FA2-151-04	FA3-106-01	FA3-104-03	
	FA3-201-01	FA3-128-01	Roof	
	FA3-316-01	FA3-129-01		
	FA3-320-01	See Table 9A-3		

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
-	<u>Btu/ft²</u>
<u>Anticipated Combustible Loading:</u>	nil
<u>Maximum Anticipated Combustible Loading:</u>	1.0E+02

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

<u>Floor Area (ft²)</u>
900

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 244 of 306)

Fire Zone: FA3-131-01	Area Designation: FA3-131 Corridor	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (West)	Zone Designation: FA3-131-01 Corridor	
Floor(s): B1MF	Associated Safety Division(s): D	
Fig: 9A-11		
Sect: 3.136		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-111-02	FA6-135-01	FA3-113-02
	FA3-112-01	<u>See Table 9A-3</u>	
	FA3-122-01		
	FA3-124-01		

Fire Barrier Description:
Reinforced concrete walls providing in excess of 3-hour fire resistive capability. Three hour fire rated door to area and all openings and penetrations to fire area are protected to 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.7E+02

<u>Floor Area (ft²)</u>
250

Fire Impact to Zone	
<u>Suppression System Operates</u> A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3. A fire will be confined within the fire zone due to the low fire loading.	<u>Suppression System Fails to Op.</u> A fire has the potential to damage the safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 245 of 306)

Fire Zone: FA3-132-01	Area Designation: A-Class 1E MOV Inverter Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: A-Class 1E MOV Inverter Room	
Floor(s): B1F	Associated Safety Division(s): A	
Fig: 9A-11		
Sect: 3.137		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-114-03	-	FA3-117-01
	FA3-106-01		FA3-119-01
	FA3-115-01		FA3-129-01
	FA3-133-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	3.9E+06
Instruments	3.5E+04
High Voltage Cables	1.1E+06
Low Voltage Cables	2.1E+07
Control Cables	1.0E+07
Instrumentation Cables	1.6E+06

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	8.4E+04
Maximum Anticipated Combustible Loading:	1.0E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.

Floor Area (ft ²)
450

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 246 of 306)

Fire Zone: FA3-133-01	Area Designation: B-Class 1E MOV Inverter Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (East)	Zone Designation: B-Class 1E MOV Inverter Room	
Floor(s): B1F	Associated Safety Division(s): B	
Fig: 9A-11		
Sect: 3.138		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-106-01	:	FA3-105-03
	FA3-116-01		FA3-125-01
	FA3-127-01		
	FA3-132-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	1.9E+06
Instruments	2.4E+04
High Voltage Cables	4.2E+06
Low Voltage Cables	4.3E+06
Control Cables	3.4E+06
Instrumentation Cables	9.3E+05

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	3.3E+04
Maximum Anticipated Combustible Loading:	4.0E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.

Floor Area (ft ²)
450

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 247 of 306)

Fire Zone:	FA3-134-01	Area Designation:	C-Class 1E MOV Inverter Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Power Source (West)	Zone Designation:	C-Class 1E MOV Inverter Room	
Floor(s):	B1F	Associated Safety Division(s)	C	
Fig:	9A-11			
Sect:	3.139			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	<u>Wall</u>	<u>Floor</u>	<u>Ceiling</u>
	FA3-112-01	FA4-101-22	FA3-112-01
	FA3-120-01		FA3-126-01
	FA3-135-01		
	FA4-101-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

<u>Potential Combustibles</u>	
<u>Item</u>	<u>Heat Release (Btu)</u>
<u>Switchgear and Control Centers</u>	1.9E+06
<u>High Voltage Cables</u>	4.2E+06
<u>Low Voltage Cables</u>	4.3E+06
<u>Control Cables</u>	3.4E+06
<u>Instrumentation Cables</u>	9.3E+05
<u>Instruments</u>	2.4E+04

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

<u>Fire Zone Combustible Summary</u>	
	<u>Btu/ft²</u>
-	
<u>Anticipated Combustible Loading:</u>	3.3E+04
<u>Maximum Anticipated Combustible Loading:</u>	4.0E+04

<u>Fire Impact to Zone</u>	
<u>Suppression System Operates</u>	<u>Suppression System Fails to Op.</u>
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train C. Train A, B and C remain free from the damage.

<u>Floor Area (ft²)</u>
450

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 248 of 306)

Fire Zone: FA3-135-01	Area Designation: D-Class 1E MOV Inverter Room	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source (West)	Zone Designation: D-Class 1E MOV Inverter Room	
Floor(s): B1F	Associated Safety Division(s): D	
Fig: 9A-11		
Sect: 3.140		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-112-01	:	FA3-113-01
	FA3-121-01		FA3-123-01
	FA3-134-01		FA3-131-01
	FA7-104-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	3.9E+06
High Voltage Cables	7.6E+05
Low Voltage Cables	2.0E+07
Control Cables	1.2E+07
Instrumentation Cables	2.6E+06
Instruments	3.5E+04

<u>Fire Detection – Primary</u> Automatic smoke	<u>Fire Detection - Backup</u> Manual Fire Alarm Pull Station
<u>Fire Suppression – Primary</u> Fire Hose Station	<u>Fire Suppression - Backup</u> Portable Fire Extinguisher

Fire Zone Combustible Summary	
-	Btu/ft ²
Anticipated Combustible Loading:	7.9E+04
Maximum Anticipated Combustible Loading:	9.5E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.

Floor Area (ft ²)
500

Table 9A-2 Fire Hazard Analysis Summary (Sheet 249 of 306)

Fire Zone: **FA4-101-01**

Building: **Power Source**

Floor(s): **B1F to 2F**

Fig: **9A-13 to 9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Auxiliary Building B1F Floor**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-115-03	FA3-112-01	FA4-101-04
	FA2-116-03	FA3-12034-01	FA4-101-240
	FA2-124-01	FA4-101-02	
	FA2-153-02	FA4-101-03	See Table 9A-3

Fire Barrier Description:
The A/B is walls are built using construction that provides at least 3-hour fire resistance for exterior walls. Penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	8.9E+06
Gasket	4.7E+05
Hydrogen gas	3.9E+06
Instruments	2.2E+07
Lube Oil	7.7E+05
Panels	8.4E+06
Rubber	2.3E+07
Transformer	1.6E+06
Washing Drainage Strainer and Transport Container	1.2E+05
High Voltage Cables	1.0E+08
Low Voltage Cables	7.8E+07
Control Cables	1.4E+08
Instrumentation Cables	1.2E+08

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.65E+04
Maximum Anticipated Combustible Loading:	3.40E+04

Floor Area (ft ²)
49,6540
0
20,450

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 250 of 306)

Fire Zone: FA4-101-02	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Power Source	Zone Designation: FA4-101-02 Stairwell (B1F-3F)	
Floor(s): B1F to Roof	Associated Safety Division(s): N	
Fig: 9A-13 to 9A-17		
Sect: 3.94141		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-116-03	FA2-209-06	Roof
	FA2-127-07	FA2-210-24	See Table 9A-3
	FA2-128-01	FA2-213-01	
	FA2-153-02	FA2-214-07	
	FA2-418-01		
	FA4-101-03		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	6.29 3E+02

Floor Area (ft ²)
1500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 251 of 306)

Fire Zone: **FA4-101-03**

Building: **Auxiliary**

Floor(s): **B1F, 1F**

Fig: **9A-13, 9A-14**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Boric Acid Tank Room**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	FA2-130-01	FA4-101-17
FA2-119-01	FA4-101-01	
FA2-128-01	FA4-101-04	
FA2-128-02		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket Instruments	7.9E+04 7.0E+05

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.860E+02
Maximum Anticipated Combustible Loading:	7.780E+02

Floor Area (ft ²)	1,3500
-------------------------------	---------------

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves small amount of materials which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 252 of 306)

Fire Zone: FA4-101-04	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Auxiliary	Zone Designation: Auxiliary Building 1F Floor	
Floor(s): 1F, 2F	Associated Safety Division(s): N	
Fig: 9A-14, 9A-15		
Sect: 3.94141		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-127-07	FA4-101-01	FA4-101-06
	FA2-128-02	FA4-101-25	FA4-101-07
	FA2-152-03	See Table 9A-3	FA4-101-08
	FA2-152-04		FA4-101-10

Fire Barrier Description:
The A/B walls are built using construction that provides at least 3-hour fire resistance for exterior walls. Penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	6.3E+07
Instruments	8.6E+06
Panels	1.6E+07
Rubber	7.6E+05
High Voltage Cables	1.0E+08
Low Voltage Cables	7.7E+07
Control Cables	1.4E+08
Instrumentation Cables	1.2E+08

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.21E+04

Floor Area (ft ²)
49,850 20,450

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 253 of 306)

Fire Zone: FA4-101-06	Building: Auxiliary	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 2F	Zone Designation: Non-Class 1E Electrical Room (FA4-101-06)		
Fig: 9A-15	Associated Safety Division(s): N		
Sect: 3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA4-101-07	FA4-101-04	FA4-101-18
	FA4-101-08		
	FA4-101-10		
	FA4-101-13		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Control Center	1.4E+07
Low Voltage Cables	4.2E+08

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.76E+05
Maximum Anticipated Combustible Loading:	3.31E+05

Floor Area (ft ²)
1,6700

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 254 of 306)

Fire Zone: **FA4-101-07**

Building: **Auxiliary**

Floor(s): **2F**

Fig: **9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Computer Room**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-06	FA4-101-04	FA4-101-18
FA4-101-08		
FA4-101-10		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	7.8E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.8E+03
Maximum Anticipated Combustible Loading:	8.2E+03

Floor Area (ft ²)
1,150

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 255 of 306)

Fire Zone: **FA4-101-08**

Building: **Auxiliary**

Floor(s): **2F**

Fig: **9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Non-Class 1E I&C Room (FA4-101-08)**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-06	FA4-101-04	FA4-101-18
FA4-101-07		
FA4-101-10		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	1.8E+07
High Voltage Cables	1.4E+07
Low Voltage Cables	1.1E+07
Control Cables	1.9E+07
Instrumentation Cables	1.7E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.98E+04
Maximum Anticipated Combustible Loading:	3.63E+04

Floor Area (ft ²)
2,79850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 256 of 306)

Fire Zone:	FA4-101-09	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	Radwaste Control Room	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-03	FA4-101-22	FA4-101-18
	FA3-113-02		FA4-101-19
	FA4-101-10		
	FA5-101-01		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Lighting Transformer	6.6E+05
Panels	1.3E+07
High Voltage Cables	2.9E+06
Low Voltage Cables	2.2E+06
Control Cables	3.9E+06
Instrumentation Cables	3.4E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.44.3E+04
Maximum Anticipated Combustible Loading:	8.95.2E+04

Floor Area (ft ²)
35600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 257 of 306)

Fire Zone:	FA4-101-10	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	FA4-101-10 Corridor	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-153-05	FA4-101-04	FA4-101-18
	FA2-209-05	FA4-101-22	FA4-101-19
	FA2-213-01	See Table 9A-3	Roof
	FA2-317-01		
	FA2-321-01		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	2.1E+07
Low Voltage Cables	1.6E+07
Control Cables	2.8E+07
Instrumentation Cables	2.5E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.0E+04
Maximum Anticipated Combustible Loading:	2.43E+04

Floor Area (ft ²)
4,6600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 258 of 306)

Fire Zone:	FA4-101-11	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	Non-Class 1E I&C Room (FA4-101-11)	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA4-101-10	FA4-101-04	FA4-101-18
	FA4-101-12	FA4-101-22	
	FA5-101-01		
	FA5-101-02		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	8.7E+06
High Voltage Cables	8.7E+06
Low Voltage Cables	6.5E+06
Control Cables	1.2E+07
Instrumentation Cables	1.0E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.8E+04
Maximum Anticipated Combustible Loading:	3.3E+04

Floor Area (ft ²)
1,650

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 259 of 306)

Fire Zone: **FA4-101-12**

Building: **Auxiliary**

Floor(s): **2F**

Fig: **9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Non-Class 1E I&C Room (FA4-101-12)**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-10	FA4-101-04	FA4-101-18
FA4-101-12	FA4-101-22	
FA4-101-14		
FA5-101-01	See Table 9A-3	

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	2.4E+07
High Voltage Cables	1.4E+07
Low Voltage Cables	1.0E+07
Control Cables	1.8E+07
Instrumentation Cables	1.6E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.23E+04
Maximum Anticipated Combustible Loading:	3.89E+04

Floor Area (ft ²)
2,60550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 260 of 306)

Fire Zone:	FA4-101-13	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	Non-Class 1E Electrical Room (FA4-101-13)	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-163-06	FA4-101-04	FA4-101-18
	FA2-209-05	See Table 9A-3	
	FA2-213-01		
	FA4-101-02		
FA4-101-06			
FA4-101-10			

Fire Barrier Description:
The walls of the A/B fire area are built using construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	2.8E+07
Low Voltage Cables	1.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.42E+04
Maximum Anticipated Combustible Loading:	2.6E+04

Floor Area (ft ²)
1,8500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 261 of 306)

Fire Zone: **FA4-101-14**

Building: **Auxiliary**

Floor(s): **2F**

Fig: **9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Communication System Equipment Room**

Associated Safety Division(s): **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-01	FA4-101-04	FA4-101-18
FA4-101-10	See Table 9A-3	
FA4-101-12		
FA4-101-16		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	1.1E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	8.45E+03
Maximum Anticipated Combustible Loading:	9.810E+034

Floor Area (ft ²)	1,3500
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 262 of 306)

Fire Zone:	FA4-101-15	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	Resin Fill Tank Room	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-209-05	FA4-101-04	FA4-101-20
	FA2-213-01	See Table 9A-3	
	FA4-101-02		
	FA4-101-04		
FA4-101-13			

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Panels	2.6E+05
High Voltage Cables	8.5E+06
Low Voltage Cables	6.3E+06
Control Cables	1.1E+07
Instrumentation Cables	9.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.43E+04
Maximum Anticipated Combustible Loading:	2.97E+04

Floor Area (ft ²)
1,5600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 263 of 306)

Fire Zone: **FA4-101-16**

Building: **Auxiliary**

Floor(s): **2F**

Fig: **9A-15**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Non-Class 1E Battery Room**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-01	FA4-101-04	FA4-101-21
FA4-101-04		
FA4-101-10		
FA4-101-14	See Table 9A-3	

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Instruments	3.5E+05
Battery Panel	6.6E+07
High Voltage Cables	6.6E+06
Low Voltage Cables	5.0E+06
Control Cables	8.8E+06
Instrumentation Cables	7.7E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.52E+04
Maximum Anticipated Combustible Loading:	9.087E+04

Floor Area (ft ²)	1,25300
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Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 264 of 306)

Fire Zone:	FA4-101-17	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	Boric Acid Batching Tank Room	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-15			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-118-01	FA4-101-03	FA4-101-20
	FA2-209-05	See Table 9A-3	
	FA2-213-01		
	FA4-101-04		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.1E+04
Instruments	5.3E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.24E+02
Maximum Anticipated Combustible Loading:	5.86.0E+02

Floor Area (ft ²)
1,3500

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 265 of 306)

Fire Zone:	FA4-101-18	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	HVAC Equipment Room (FA4-101-18)	
Floor(s):	3F	Associated Safety Division(s)	N	
Fig:	9A-16			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-418-01	FA4-101-06	FA4-101-23
	FA2-419-01	FA4-101-07	FA4-101-24
	FA2-422-01	FA4-101-08	Roof
	FA2-423-04	FA4-101-09	See Table 9A-3
	FA4-101-021		

Fire Barrier Description:
The A/B is constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance for exterior walls. Penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	1.1E+07
Grease	2.5E+05
Instruments	7.4E+06
Lube Oil	8.0E+06
Panels	1.0E+06
High Voltage Cables	9.2E+07
Low Voltage Cables	6.9E+07
Control Cables	1.2E+08
Instrumentation Cables	1.1E+08
Rubber	1.1E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.43E+04
Maximum Anticipated Combustible Loading:	2.98E+04

Floor Area (ft ²)
17,4900

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 266 of 306)

Fire Zone:	FA4-101-19	Area Designation:	Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Auxiliary	Zone Designation:	TSC Emergency Filter Unit & Fan Room	
Floor(s):	3F	Associated Safety Division(s)	N	
Fig:	9A-16			
Sect:	3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA4-101-18	FA4-101-09 FA4-101-10	Reef FA4-101-18

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Charcoal Filter	6.6E+06
Instruments	7.9E+05
Particle Filters	2.7E+05
High Voltage Cables	4.2E+06
Low Voltage Cables	3.2E+06
Control Cables	5.6E+06
Instrumentation Cables	4.9E+06

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke/heat	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Water spray, and Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.2E+04
Maximum Anticipated Combustible Loading:	3.9E+04

Floor Area (ft ²)
800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 267 of 306)

Fire Zone: FA4-101-20	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building: Auxiliary	Zone Designation: HVAC Equipment Room (FA4-101-20)	
Floor(s): 3F	Associated Safety Division(s): N	
Fig: 9A-16		
Sept: 3.94141		

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-118-01	FA4-101-01	FA4-101-24
	FA2-119-01	FA4-101-04	Roof
	FA2-418-01	FA4-101-15	<u>See Table 9A-3</u>
	FA4-101-021	FA4-101-17	
	FA4-101-18	<u>See Table 9A-3</u>	

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	1.1E+06
Grease	1.1E+06
Instruments	1.2E+06
Panels	1.1E+05
Particle Filters	1.4E+06
High Voltage Cables	4.4E+07
Low Voltage Cables	3.3E+07
Control Cables	5.9E+07
Instrumentation Cables	5.2E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.34E+04
Maximum Anticipated Combustible Loading:	2.89E+04

Floor Area (ft ²)
8,36000

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 268 of 306)

Fire Zone: FA4-101-21	Building: Auxiliary	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): 3F	Zone Designation: C/V Low Volume Purge Exhaust Filtration Unit Room		
Fig: 9A-16	Associated Safety Division(s): N		
Sect: 3.94141			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA4-101-01	FA4-101-04	Reef
	FA4-101-18	FA4-101-16	FA4-101-20
	FA4-101-20		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Charcoal Filter	1.6E+07
Filters	5.5E+05
Grease	8.8E+04
Instruments	1.2E+06
Particle Filters	3.6E+05
High Voltage Cables	9.0E+06
Low Voltage Cables	6.7E+06
Control Cables	1.2E+07
Instrumentation Cables	1.0E+07

Fire Detection – Primary Automatic smoke/heat	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Water spray, and Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.340E+04
Maximum Anticipated Combustible Loading:	4.08E+04

Floor Area (ft ²)
1,7400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 269 of 306)

Fire Zone: **FA4-101-22**

Building: **Auxiliary**

Floor(s): **B1F, 1F**

Fig: **9A-13, 9A-14**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Hold Up Tank Room**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-112-01	FA4-101-01	FA4-101-09
FA3-113-02	FA4-101-04	FA4-101-10
FA3-120-01	FA5-101-01	FA4-101-11
FA3-134-01		FA4-101-12
FA4-101-04		
FA4-101-04		
FA5-101-01		

Fire Barrier Description:
The walls of the A/B fire area are constructed using reinforced concrete and other material which results in construction that provides at least 3-hour fire resistance. Openings and penetrations into the auxiliary building are protected with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	1.2E+05
Instruments	5.3E+05

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+02
Maximum Anticipated Combustible Loading:	2.93.0E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)	2,9500
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Table 9A-2 Fire Hazard Analysis Summary (Sheet 270 of 306)

Fire Zone: **FA4-101-23**
 Building: **Auxiliary**
 Floor(s): **Roof**
 Fig: **9A-17**
 Sect: **3.94141**

Area Designation: **Auxiliary Building**
 Zone Designation: **Instrument Maintenance Shop (Cold)**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA2-210-24	FA4-101-18	Roof
	FA2-214-07	<u>See Table 9A-3</u>	
	FA2-509-01		
	FA2-510-02		
	FA4-101-10		

Fire Barrier Description:
 -

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary Automatic smoke	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
4,860
<u>2,550</u>

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	5.03.6E+01

Table 9A-2 Fire Hazard Analysis Summary (Sheet 271 of 306)

Fire Zone: **FA4-101-24**

Building: **Auxiliary**

Floor(s): **Roof**

Fig: **9A-17**

Sect: **3.94141**

Area Designation: **Auxiliary Building**

Zone Designation: **Auxiliary Building EL.76'-5" Floor**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	FA4-101-18	Roof
FA2-210-24	FA4-101-20	
FA2-214-07	<u>See Table 9A-3</u>	
FA4-101-02		

Fire Barrier Description:

-

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Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
3,950

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.4E+01

Table 9A-2 Fire Hazard Analysis Summary (Sheet 272 of 306)

Fire Zone: FA4-101-25	Area Designation: Auxiliary Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 15, 72 and 804
Building: Auxiliary	Zone Designation: Auxiliary Building Equipment Room	
Floor(s): B1F	Associated Safety Division(s): N	
Fig: 9A-13		
Sect: 3.94141		

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MIC-03-09-00015

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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA4-101-01		FA4-101-04
		See Table 9A-3

Fire Barrier Description:
The A/B is walls are built using construction that provides at least 3-hour fire resistance for exterior walls.
Penetrations into the auxiliary building are protexted with fire protection features providing at least 3-hours fire resistance. Internal zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Charcoal	1.3E+08

Fire Detection – Primary Air Aspirating Very Early Smoke Detection Alarm	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Wet Pipe Sprinkler	Fire Suppression - Backup Fire Hose Station

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
250

Fire Zone Combustible Summary	
	Btu/ft ²
-	
Anticipated Combustible Loading:	5.49.2E+05
Maximum Anticipated Combustible Loading:	6.51.1E+056

Table 9A-2 Fire Hazard Analysis Summary (Sheet 273 of 306)

Fire Zone:	FA5-101-01	Area Designation:	Access Control Building Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Access Control	Zone Designation:	Access Control Building	
Floor(s):	B1F to 2F	Associated Safety Division(s)	N	
Fig:	9A-18, 9A-19			
Sect:	3.96142			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA4-101-01	FA4-101-12	FA5-101-02
	FA4-101-04	FA4-101-14	Roof
	FA4-101-09	FA4-101-22	
	FA4-101-10	FA5-101-02	
	FA4-101-11		
	FA4-101-12		

Fire Barrier Description:
A 3 hour rated fire wall exists between this building and the adjacent auxiliary building. All opening in this wall are protected to 3-hour fire rating. Other exterior walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Filters	5.5E+05
Instruments	6.2E+06
Lube Oil	8.1E+06
Panels	3.0E+06
High Voltage Cables	4.7E+07
Low Voltage Cables	3.5E+07
Control Cables	6.2E+07
Instrumentation Cables	5.4E+07
Filters	4.1E+05

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	2.9E+04

Floor Area (ft ²)
8,800

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 274 of 306)

Fire Zone: **FA5-101-02**

Building: **Access Control**

Floor(s): **2F**

Fig: **9A-19**

Sect: **3.96142**

Area Designation: **Access Control Building Area**

Zone Designation: **Technical Support Center**

Associated Safety Division(s) **N**

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 13, 14, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA4-101-10	FA5-101-01	Roof
FA4-101-11		
FA4-101-12		
FA5-101-01		

Fire Barrier Description:
The walls of this zone are constructed using reinforced concrete and other material zone boundaries are structural without assigned fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	1.6E+07
Low Voltage Cables	1.2E+07
Control Cables	2.1E+07
Instrumentation Cables	1.9E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)
3,000

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 275 of 306)

Fire Zone: **FA6-101-01**
 Building: **Turbine**
 Floor(s): **B1F**
 Fig: **9A-20**
 Sect: **3.96143**

Area Designation: **Turbine Building**
 Zone Designation: **Turbine Building B1F Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
-	-	FA6-101-02 FA6-101-07 FA6-101-08 FA6-101-12

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	3.8E+06
High Voltage Cables	2.4E+08
Low Voltage Cables	1.8E+08
Control Cables	3.1E+08
Instrumentation Cables	2.7E+08

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.45E+04
Maximum Anticipated Combustible Loading:	2.53.1E+04

Floor Area (ft ²)
47,400
39,450

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 276 of 306)

Fire Zone: **FA6-101-02**

Building: **Turbine**

Floor(s): **1F**

Fig: **9A-21**

Sect: **3.96143**

Area Designation: **Turbine Building**

Zone Designation: **Turbine Building 1F Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA6-101-03	FA6-101-01	FA6-101-13
FA6-101-04	See Table 9A-3	FA6-101-16
FA6-101-05		
FA6-101-06		

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Crane	4.2E+04
Instruments	2.1E+06
Lube Oil	5.6E+07
Panel	1.6E+06
Lube oil	3.3E+04
High Voltage Cables	3.1E+08
Low Voltage Cables	2.4E+08
Control Cables	4.2E+08
Instrumentation Cables	3.7E+08

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Floor Area (ft ²)
60,550

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 277 of 306)

Fire Zone:	FA6-101-03	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 72 and 804
Building:	Turbine	Zone Designation:	Electrical Room (1F)	
Floor(s):	1F	Associated Safety Division(s)	N	
Fig:	9A-21			
Sect:	3.96143			

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MIC-03-09-00015

MIC-03-09-00015

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA6-101-02	FA6-101-10	FA6-101-14
	FA6-101-04	FA6-101-15	
	FA6-101-07		
	FA6-101-09		

Fire Barrier Description:
This Electric Room is separated from the adjacent turbine building fire zones and fire areas with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Battery	1.4E+07
Charger	5.2E+06
Switchgear and Control Centers	4.4E+07
High Voltage Cables	5.2E+07
Low Voltage Cables	3.9E+07
Control Cables	6.9E+07
Instrumentation Cables	6.0E+07

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Preaction Sprinkler Double-interlock pre-action suppression system	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.72.2E+04
Maximum Anticipated Combustible Loading:	8.42.7E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this fire zone to be damaged.

Floor Area (ft ²)
12,750

Table 9A-2 Fire Hazard Analysis Summary (Sheet 278 of 306)

Fire Zone: **FA6-101-04**

Building: **Turbine**

Floor(s): **1F**

Fig: **9A-21**

Sect: **3.96143**

Area Designation: **Turbine Building**

Zone Designation: **FA6-101-04 Zone**

Associated Safety Division(s): **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-102-01	FA2-203-04	FA6-101-15
FA2-108-01	FA2-204-04	See Table 9A-3
FA2-201-01	FA2-205-04	
FA2-202-01	FA2-206-04	
	<u>FA3-111-03</u>	
	<u>FA6-101-02</u>	
	<u>FA6-101-03</u>	
	<u>FA6-101-07</u>	

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables	4.5E+07
Low Voltage Cables	3.4E+07
Control Cables	6.1E+07
Instrumentation Cables	5.3E+07

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.21E+04
Maximum Anticipated Combustible Loading:	2.725E+04

Floor Area (ft ²)
8,600
<u>9,300</u>

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 279 of 306)

Fire Zone:	FA6-101-05	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	FA6-101-05 Stairwell	
Floor(s):	1F to Roof	Associated Safety Division(s)	N	
Fig: Sect:	9A-21 to 9A-26 3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: A two hour fire barrier surrounds the stairwell shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the stairwell are rated to 1 ½ hours fire resistance. The stair well is designed to meet IBC requirements.
	FA6-101-02	FA6-101-22	Roof	
	FA6-101-13			
	FA6-101-17 FA6-101-19			

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.7E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 280 of 306)

Fire Zone:	FA6-101-06	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	FA6-101-06 Stairwell	
Floor(s):	1F to Roof	Associated Safety Division(s)	N	
Fig:	9A-21 to 9A-26			
Sect:	3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: A two hour fire barrier surrounds the stairwell shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the stairwell are rated to 1 ½ hours fire resistance. The stair well is designed to meet IBC requirements.
	FA6-101-02	FA6-101-23	Roof	
	FA6-101-13			
	FA6-101-17			
	FA6-101-19			

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.1E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 281 of 306)

Fire Zone:	FA6-101-07	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	FA6-101-07 E.V Shaft	
Floor(s):	1F to Roof	Associated Safety Division(s)	N	
Fig: Sect:	9A-21 to 9A-26 3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA6-101-02	FA6-101-01	Roof
	FA6-101-03		
	FA6-101-04	See Table 9A-3	
	FA6-101-08		

Fire Barrier Description:
A two hour fire barrier surrounds the elevator shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the elevator are rated to 1 ½ hours fire resistance. The elevator shaft designed to meet IBC and ASME 17 requirements.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	6.2E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 282 of 306)

Fire Zone:	FA6-101-08	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	FA6-101-08 Stairwell	
Floor(s):	1F to Roof	Associated Safety Division(s)	N	
Fig: Sect:	9A-21 to 9A-26 3.96143			

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA6-101-02	FA6-101-01	Roof
	FA6-101-07		
	FA6-101-13 FA6-101-17	See Table 9A-3	

Fire Barrier Description:
A two hour fire barrier surrounds the stairwell shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the stairwell are rated to 1 ½ hours fire resistance. The stair well is designed to meet IBC requirements.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.7E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
250

Table 9A-2 Fire Hazard Analysis Summary (Sheet 283 of 306)

Fire Zone: **FA6-101-09**

Building:	Turbine
Floor(s):	1F to 3F
Fig:	9A-21 to 9A-23
Sect:	3.96143

Area Designation:	Turbine Building
Zone Designation:	FA6-101-09 Stairwell

Applicable Regulatory and Code Ref(s):	IBC, RG 1.189; NFPA 10, 14, 72 and 804
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Associated Safety Division(s)	N
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MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA6-101-03 FA6-101-14 FA6-101-18	-	Roof

Fire Barrier Description: A two hour fire barrier surrounds the stairwell shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the stairwell are rated to 1 ½ hours fire resistance. The stair well is designed to meet IBC requirements.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.3E+02

Floor Area (ft ²)
400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 284 of 306)

Fire Zone:	FA6-101-11	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	FA6-101-11 Stairwell	
Floor(s):	1F to Roof	Associated Safety Division(s)	N	
Fig: Sect:	9A-21 to 9A-26 3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA6-101-02	-	Roof
	FA6-101-13		
	FA6-101-17 FA6-101-19		

Fire Barrier Description:
A two hour fire barrier surrounds the stairwell shaft. All penetrations into or from the shaft are protected for 2-hours fire resistance. Doors to the stairwell are rated to 1 ½ hours fire resistance. The stair well is designed to meet IBC requirements.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.9E+02

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
500

Table 9A-2 Fire Hazard Analysis Summary (Sheet 285 of 306)

Fire Zone:	FA6-101-12	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	Sampling Room	
Floor(s):	1F	Associated Safety Division(s)	N	
Fig:	9A-21			
Sect:	3.96143			

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.
	FA6-101-02	FA6-101-01	FA6-101-13	

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	4.4E+01

Floor Area (ft ²)
2,100

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 286 of 306)

Fire Zone: **FA6-101-13**
 Building: **Turbine**
 Floor(s): **2F**
 Fig: **9A-22**
 Sect: **3.96143**

Area Designation: **Turbine Building**
 Zone Designation: **Turbine Building 2F Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA6-101-05	FA6-101-02	FA6-101-17
FA6-101-06	FA6-101-12	
FA6-101-07		
FA6-101-08	See Table 9A-3	

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Crane	4.2E+04
Gen Load Breaker and Station	1.1E+05
Grease	2.9E+06
Lube Oil	9.4E+04
Instruments	2.6E+06
Panel	3.9E+05
High Voltage Cables	3.1E+08
Low Voltage Cables	2.4E+08
Control Cables	4.2E+08
<u>Instrumentation Cables</u>	<u>3.7E+08</u>

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft²)
60,050

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 287 of 306)

Fire Zone:	FA6-101-14	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Turbine	Zone Designation:	Electrical Room (2F)	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-22			
Sect:	3.96143			

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: This Electric Room is separated from the adjacent turbine building fire zones and fire areas with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance.
	FA6-101-07	FA6-101-03	FA6-101-18	
	FA6-101-09	See Table 9A-3	Roof	
	FA6-101-13			
	FA6-101-15			

Potential Combustibles	
Item	Heat Release (Btu)
Battery	1.4E+07
Charger	5.2E+06
Switchgear and Control Center	3.2E+07
High Voltage Cables	5.2E+07
Low Voltage Cables	3.9E+07
Control Cables	6.9E+07
Instrumentation Cables	6.0E+07

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Preaction Sprinkler Double-interlock pre-action suppression system	There is no backup suppression system. Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.42.1E+04
Maximum Anticipated Combustible Loading:	7.72.5E+04

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
An quickly identified and suppressed fire will serve to minimize adverse impact and recovery cost after a fire.	There is no safe-shutdown circuit in this fire zone to be damaged.
Floor Area (ft ²)	
12,850	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 288 of 306)

Fire Zone: **FA6-101-15**

Building: **Turbine**

Floor(s): **2F**

Fig: **9A-22**

Sect: **3.96143**

Area Designation: **Turbine Building**

Zone Designation: **FA6-101-15 Zone**

Associated Safety Division(s): **N**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-102-04	FA6-101-04	Roof
FA2-108-04	See Table 9A-3	
FA2-202-04		
FA2-205-04		
<u>FA6-101-02</u>		
<u>FA6-101-03</u>		
<u>FA6-101-07</u>		
<u>FA6-101-08</u>		

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Gasket	4.0E+04
Grease	1.8E+05
Instruments	1.6E+06
High Voltage Cables	4.5E+07
Low Voltage Cables	3.4E+07
Control Cables	6.1E+07
Instrumentation Cables	5.3E+07

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.32E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft²)
8,60750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this fire zone to be damaged.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 289 of 306)

Fire Zone:	FA6-101-16	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804
Building:	Turbine	Zone Designation:	Turbine Lube Oil Tank Room	
Floor(s):	2F	Associated Safety Division(s)	N	
Fig:	9A-22			
Sect:	3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. The turbine oil tank room protected with 3-hour fire walls.
	FA6-101-13 FA6-101-15	FA6-101-02	FA6-101-17	

Potential Combustibles	
Item	Heat Release (Btu)
Lube Oil	4.6E+09

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.9E+06
Maximum Anticipated Combustible Loading:	2.3E+06

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this zone to be damaged.

Floor Area (ft ²)
2,400

Table 9A-2 Fire Hazard Analysis Summary (Sheet 290 of 306)

Fire Zone: **FA6-101-17**

Building: **Turbine**

Floor(s): **3F**

Fig: **9A-23**

Sect: **3.96143**

Area Designation: **Turbine Building**

Zone Designation: **Turbine Building 3F Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 13, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face
 Listed See Table 9A-3
 For Complete Listing)

Wall	Floor	Ceiling
FA6-101-05	FA6-101-13	FA6-101-19
FA6-101-06	FA6-101-16	FA6-101-20
FA6-101-07		FA6-101-21
FA6-101-08	See Table 9A-3	Roof

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	7.2E+06
Instruments	3.5E+05
Panel	4.1E+07
Rubber	1.1E+05
High Voltage Cables	3.3E+08
Low Voltage Cables	2.5E+08
Control Cables	4.4E+08
Instrumentation Cables	3.8E+08

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Floor Area (ft ²)
62,900

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The wet-pipe extinguishing system provides protection to prevent a severe fire in this area. This will minimize damage from a severe fire.	There is no safe-shutdown circuit in this fire zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 291 of 306)

Fire Zone:	FA6-101-18	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	Security Room (FA6-101-18)	
Floor(s):	3F	Associated Safety Division(s)	N	
Fig:	9A-23			
Sect:	3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.
	FA6-101-09	FA6-101-14	Roof	

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	9.3E+04

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Portable Fire Extinguisher	Fire Suppression - Backup There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	2.3E+02

Floor Area (ft ²)
400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 292 of 306)

Fire Zone: **FA6-101-19**
 Building: **Turbine**
 Floor(s): **4F+**
 Fig: **9A-24, 9A-25**
 Sect: **3.96143**

Area Designation: **Turbine Building**
 Zone Designation: **Turbine Building Operation Floor**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s) **N**

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Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA6-101-05	FA6-101-17	FA6-101-22
FA6-101-06	FA6-101-20	FA6-101-23
FA6-101-07	FA6-101-21	Roof
FA6-101-08	See Table 9A-3	

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Grease	3.4E+06
Instruments	1.9E+06
Oil	1.5E+07
Generator	1.3E+07
High Voltage Cables	2.7E+08
Low Voltage Cables	2.1E+08
Control Cables	3.7E+08
Instrumentation Cables	3.2E+08

Fire Detection – Primary	Fire Detection - Backup
UV/IR flame detection	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station Wet Pipe Sprinklers on Bearings	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft ²)
52,650

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves small amount of materials which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 293 of 306)

Fire Zone:	FA6-101-20	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	Tool Room (FA6-101-20)	
Floor(s):	4F	Associated Safety Division(s)	N	
Fig:	9A-24			
Sect:	3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA6-101-11 FA6-101-19	FA6-101-17	FA6-101-19

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1.2E+02

Floor Area (ft ²)
750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 294 of 306)

Fire Zone:	FA6-101-21	Area Designation:	Turbine Building	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Building:	Turbine	Zone Designation:	Tool Room (FA6-101-21)	
Floor(s):	4F	Associated Safety Division(s)	N	
Fig:	9A-24			
Sect:	3.96143			

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.
	FA6-101-19	FA6-101-17	FA6-101-19	

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	4.4E+01

Floor Area (ft ²)
2,100

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 295 of 306)

Fire Zone: **FA6-101-22**

Building:	Turbine
Floor(s):	Roof
Fig:	9A-26
Sect:	3.96143

Area Designation:	Turbine Building
Zone Designation:	Security Room (FA6-101-22)

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 14, 72 and 804

Associated Safety Division(s)	N
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Adjacent Fire Zones:
(Primary Inter face
Listed See Table 9A-3
For Complete Listing)

Wall	Floor	Ceiling
FA6-101-05	FA6-101-19	Roof

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Portable Fire Extinguisher	-

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.7E+02

Floor Area (ft ²)
250

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 296 of 306)

Fire Zone: **FA6-101-23**

Building:	Turbine
Floor(s):	Roof
Fig:	9A-26
Sect:	3.96143

Area Designation:	Turbine Building
Zone Designation:	Security Room (FA6-101-23)

Applicable Regulatory and Code Ref(s):	IBC, RG 1.189; NFPA 10, 14, 72 and 804
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Associated Safety Division(s)	N
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MIC-03-09-00015

Adjacent Fire Zones:
(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA6-101-06	FA6-101-19	Roof

Fire Barrier Description:
The turbine building is separated from the adjacent R/B and power source building with a 3-hour fire rated wall with all penetrations and openings protected to 3-hour fire resistance. Other walls are not assigned a fire rating.

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	9.3E+04

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	3.1E+02

Floor Area (ft ²)
300

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly involves transient material which personnel would notice a fire involving and initiate fire suppression using portable extinguishers or manual hose streams before damage.	There is no safe-shutdown circuit in this zone to be damaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 297 of 306)

Fire Zone: FA7-101-01	Area Designation: ESW Piping Tunnel including ESW Pipe Chase	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 72 and 804	MIC-03-09-00015
Building: ESW Pipe Tunnel	Zone Designation: A-ESW Piping Tunnel including ESW Pipe Chase		
Floor(s): B1F	Associated Safety Division(s): A		MIC-03-09-00015
Fig: 9A-27			
Sect: 3.97144			

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The ESW piping tunnels are constructed with reinforced concrete walls, floor and ceiling which provide in excess of 3-hour fire resistance capability as defined in ASTM E-119. All openings and penetrations are protected for 3-hour fire resistance.	MIC-03-09-00015
	FA2-102-01 FA2-104-01 FA3-101-01 FA7-102-01 FA3-128-01	FA7-103-01 FA7-104-04	FA7-102-01 FA7-103-04 FA7-104-04		

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Portable Fire Extinguisher	Fire Suppression - Backup There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	nil

Fire Impact to Zone		MIC-03-09-00001
Suppression System Operates	Suppression System Fails to Op.	
A quickly identified and suppressed fire will minimize damage and after event cleanup. Portable fire extinguishers are available in the vicinity.	A fire has the potential to damage safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage.	MIC-03-09-00015

Floor Area (ft ²)
44,300 1,400

Table 9A-2 Fire Hazard Analysis Summary (Sheet 298 of 306)

Fire Zone: FA7-102-01	Building: ESW Pipe Tunnel	Area Designation: ESW Piping Tunnel including ESW Pipe Chase	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 72 and 804	MIC-03-09-00015
Floor(s): B1F		Zone Designation: B-ESW Piping Tunnel including ESW Pipe Chase		MIC-03-09-00015
Fig: 9A-27		Associated Safety Division(s): B		
Sect: 3.98145				

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling	Fire Barrier Description: The ESW piping tunnels are constructed with reinforced concrete walls, floor and ceiling which provide in excess of 3-hour fire resistance capability as defined in ASTM E-119. All openings and penetrations are protected for 3-hour fire resistance.	MIC-03-09-00015
	FA2-105-01 FA3-102-04 FA3-128-01 FA7-101-01 FA7-103-01	FA7-101-01 See Table 9A-3	FA7-103-04 FA7-104-04		

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Portable Fire Extinguisher	Fire Suppression - Backup There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	nil

Fire Impact to Zone		MIC-03-09-00001
Suppression System Operates	Suppression System Fails to Op.	
A quickly identified and suppressed fire will minimize damage and after event cleanup. Portable fire extinguishers are available in the vicinity.	A fire in this fire zone has the potential to damage safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage.	MIC-03-09-00015

Floor Area (ft ²)
44,300 2,150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 299 of 306)

Fire Zone: **FA7-103-01**
 Building: **ESW Pipe Tunnel**
 Floor(s): **B1F**
 Fig: **9A-27**
 Sect: **3.99146**

Area Designation: **ESW Piping Tunnel including ESW Pipe Chase**
 Zone Designation: **C-ESW Piping Tunnel including ESW Pipe Chase**
 Associated Safety Division(s): **C**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 72 and 804

MIC-03-09-00015
 MIC-03-09-00015

Adjacent Fire Zones:	Wall	Floor	Ceiling
(Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2-106-01	FA7-101-04	FA7-104-04
	FA3-108-01	FA7-102-04	FA7-104-04
	FA7-101-01	FA7-104-01	FA7-102-04
	FA7-102-01	See Table 9A-3	FA7-103-04

Fire Barrier Description:
The ESW piping tunnels are constructed with reinforced concrete walls, floor and ceiling which provide in excess of 3-hour fire resistance capability as defined in ASTM E-119. All openings and penetrations are protected for 3-hour fire resistance.

MIC-03-09-00015

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Portable Fire Extinguisher	There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	nil

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly identified and suppressed fire will minimize damage and after event cleanup. Portable fire extinguishers are available in the vicinity.	A fire in this fire zone has the potential to damage safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage.

Floor Area (ft ²)
14,300 2,900

MIC-03-09-00001

MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 300 of 306)

Fire Zone: FA7-104-01	Building: ESW Pipe Tunnel	Area Designation: ESW Piping Tunnel <u>including ESW Pipe Chase</u>	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 72 and 804	MIC-03-09-00015
Floor(s): B1F		Zone Designation: D-ESW Piping Tunnel <u>Dincluding ESW Pipe Chase</u>		MIC-03-09-00015
Fig: 9A-26		Associated Safety Division(s): D		
Sect: 3.100<u>47</u>				

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor Wall	Ceiling	Fire Barrier Description: The ESW piping tunnels are constructed with reinforced concrete walls, floor and ceiling which provide in excess of 3-hour fire resistance capability as defined in ASTM E-119. All openings and penetrations are protected for 3-hour fire resistance.	MIC-03-09-00015
	FA2-107-01	FA7-104-04	FA7-103-01		
	FA3-110-04	FA7-102-04	FA7-401-01		
	FA7-104-04	FA7-103-04	FA7-402-01		
	FA7-102-04	<u>FA3-111-01</u>	FA7-403-01		
	<u>FA2-108-01</u>	<u>FA3-111-02</u>			
	<u>FA3-108-01</u>	<u>FA3-112-01</u>			
	<u>FA3-110-01</u>	See Table 9A-3			

Potential Combustibles	
Item	Heat Release (Btu)
Transients Only	

Fire Detection – Primary There is no automatic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station
Fire Suppression – Primary Portable Fire Extinguisher	Fire Suppression - Backup There is no backup suppression system.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	nil

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly identified and suppressed fire will minimize damage and after event cleanup. <u>Portable fire extinguishers are available in the vicinity.</u>	A fire in this fire zone has the potential to damage safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage.
Floor Area (ft ²) 14,300 <u>1,950</u>	MIC-03-09-00001
	MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 301 of 306)

Fire Zone: **FA7-401-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97148**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **A-Class 1E GTG Power Source Fuel Storage Vault**
 Associated Safety Division(s): **A**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-103-02	FA7-402-01	
FA3-104-02	FA7-403-01	
FA7-102-01		
FA7-103-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this vault and access tunnel. The door to the access tunnel and vault is 3-hour fire rated and all openings and penetrations into the vault and access tunnel are rated to provide 3-hour fire resistance. Ventilations supply and exhaust openings contain 3-hour fire rated dampers.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary	Fire Detection - Backup
Vapor and Liquid Detection	Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary	Fire Suppression - Backup
Dry-Pipe Sprinkler	Manual Hose Station located in the PS/B adjacent to the access tunnel entrance. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this vault and access tunnel and will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train A. Train B, C and D remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 302 of 306)

Fire Zone: **FA7-402-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97149**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **B-Class 1E GTG Power Source Fuel Storage Vault**
 Associated Safety Division(s): **B**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-103-02	FA7-103-01	-
FA7-102-01	FA7-104-01	
FA7-103-01		
FA7-401-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this vault and access tunnel. The door to the access tunnel and vault is 3-hour fire rated and all openings and penetrations into the vault and access tunnel are rated to provide 3-hour fire resistance. Ventilations supply and exhaust openings contain 3-hour fire rated dampers.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary	Fire Detection - Backup
Vapor and Liquid Detection	Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary	Fire Suppression - Backup
Dry-Pipe Sprinkler	Manual Hose Station located in the PS/B adjacent to the access tunnel entrance. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

MIC-03-09-00015

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft ²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this vault and access tunnel and will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train B. Train A, C and D remain free from the damage to achieve safe-shutdown.

MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 303 of 306)

Fire Zone: **FA7-403-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97150**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **A-AAC GTG Power Source Fuel Storage Vault**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

Associated Safety Division(s) **N**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-105-03	FA7-103-01	-
	FA7-102-01	FA7-104-01	
	FA7-103-01		
	FA7-401-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary Vapor and Liquid Detection	Fire Detection - Backup Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary Dry-Pipe Sprinkler	Fire Suppression - Backup Manual Hose Station located in the tunnel from the PS/B. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

MIC-03-09-00015

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this room and will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 304 of 306)

Fire Zone: **FA7-404-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97151**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **C-Class 1E GTG Power Source Fuel Storage Vault**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

Associated Safety Division(s) **C**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-109-02	FA7-103-01	-
	FA7-102-01	FA7-104-01	
	FA7-103-01		
	FA7-405-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary Vapor and Liquid Detection	Fire Detection - Backup Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary Dry-Pipe Sprinkler	Fire Suppression - Backup Manual Hose Station located in the tunnel from the PS/B. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

MIC-03-09-00015

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this room and will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train C. Train A, B and D remain free from the damage to achieve safe-shutdown.

MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 305 of 306)

Fire Zone: **FA7-405-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97152**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **D-Class 1E GTG Power Source Fuel Storage Vault**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

Associated Safety Division(s) **D**

MIC-03-09-00015

Adjacent Fire Zones:
 (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-111-02	FA7-103-01	-
FA7-102-01	FA7-104-01	
FA7-103-01		
FA7-404-01		
FA7-406-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary	Fire Detection - Backup
Vapor and Liquid Detection	Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary	Fire Suppression - Backup
Dry-Pipe Sprinkler	Manual Hose Station located in the tunnel from the PS/B. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this room and will minimize fire damage to the safety-related equipment consistent with GDC-3.	A fire has the potential to damage the safe-shutdown functions associated with safety train D. Train A, B and C remain free from the damage to achieve safe-shutdown.

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 306 of 306)

Fire Zone: **FA7-406-01**
 Building: **O/B**
 Floor(s):
 Fig: **9A-27**
 Sect: **3.97153**

Area Designation: **Power Source Fuel Storage Vault**
 Zone Designation: **B-AAC GTG Power Source Fuel Storage Vault**

Applicable Regulatory and Code Ref(s):
IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804

Associated Safety Division(s) **N**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall	Floor	Ceiling
	FA3-113-03	FA7-103-01	-
	FA7-102-01	FA7-104-01	
	FA7-103-01		
	FA7-405-01		

Fire Barrier Description:
Walls of reinforced concrete or other material providing a minimum 3-hour fire resistance rating form the boundaries of this room. The door to the room is 3-hour fire rated and all openings and penetrations into the room are rated to provide 3-hour fire resistance.

Potential Combustibles	
Item	Heat Release (Btu)
Fuel oil	1.79E+10

Fire Detection – Primary Vapor and Liquid Detection	Fire Detection - Backup Manual Fire Alarm Pull Station located in the tunnel from the PS/B.
Fire Suppression – Primary Dry-Pipe Sprinkler	Fire Suppression - Backup Manual Hose Station located in the tunnel from the PS/B. Portable fire extinguishers located as appropriate for hazards and work activities during maintenance outages.

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.210E+067
Maximum Anticipated Combustible Loading:	-

Floor Area (ft²)
1850

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
The dry-pipe sprinkler system will suppress the fire in this room and will minimize fire damage to the safety-related equipment consistent with GDC-3.	There is no safe-shutdown circuit in this zone to be damaged.

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 3 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA1-101-19	Ceiling	FA1-101-17
	Floor	FA1-101-06
	Wall	FA1-101-10, FA1-101-17, FA1-101-20
FA1-101-20	Ceiling	FA1-101-17
	Floor	FA1-101-06
	Wall	FA1-101-17, FA1-101-19
FA1-101-21	Ceiling	FA1-101-23, FA1-101-24
	Floor	FA1-101-13
	Wall	FA1-101-08, FA1-101-09, FA1-101-15, FA1-101-16, FA1-101-23, FA1-101-24
FA1-101-22	Ceiling	FA1-101-26
	Floor	FA1-101-07
	Wall	FA1-101-11, FA1-101-18
FA1-101-23	Floor	FA1-101-03, FA1-101-08, FA1-101-13, FA1-101-15, FA1-101-18, FA1-101-21
	Wall	FA1-101-08, FA1-101-14, FA1-101-21, FA1-101-24, FA1-101-26, FA2-207-01, FA2-409-02, FA2-414-01, FA2-507-01, FA2-601-02
FA1-101-24	Floor	FA1-101-03, FA1-101-09, FA1-101-13, FA1-101-15, FA1-101-16, FA1-101-17, FA1-101-21
	Wall	FA1-101-09, FA1-101-21, FA1-101-23, FA1-101-25, FA2-208-01, FA2-410-02, FA2-414-01, FA2-415-01, FA2-507-01, FA2-509-01, FA2-510-01
FA1-101-25	Floor	FA1-101-03, FA1-101-10, FA1-101-12, FA1-101-17
	Wall	FA1-101-03, FA1-101-06, FA1-101-10, FA1-101-17, FA1-101-24, FA1-101-26, FA2-208-01, FA2-210-17 , FA2-210-19, FA2-210-21 , FA2-214-04 , FA2-214-07 , FA2-506-01, FA2-511-01
FA1-101-26	Floor	FA1-101-03, FA1-101-11, FA1-101-12, FA1-101-14, FA1-101-18, FA1-101-22
	Wall	FA1-101-03, FA1-101-07, FA1-101-11, FA1-101-14, FA1-101-18, FA1-101-23, FA1-101-25, FA2-207-01, FA2-210-19, FA2-506-01
FA2-101-01	Ceiling	Roof
	Wall	FA2-111-01, FA2-201-01, FA2-320-01, FA2-420-01, FA2-424-01 , FA2-507-01, FA2-601-02, FA3-1012-01, FA3-1034-03

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 4 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-102-01	Ceiling	FA2-201-01, FA2-202-01, FA2- 420 <u>507</u> -01
	Wall	FA2-103-01, FA2-104-01, FA2-111-01, FA2-201-01, FA2-202-01, <u>FA2-303-01</u> , FA2-320-01, <u>FA2-424-01</u> , FA3-101-01, FA3-104-03, FA6-101-04, FA6-101-15 , FA7-101-01
FA2-103-01	Ceiling	FA2- 202 <u>104</u> -01
	Wall	FA2-102-01, FA2-104-01, FA2-111-01
FA2-104-01	Ceiling	<u>FA2-201-01</u> , FA2-202-01
	Floor	<u>FA2-103-01</u>
	Wall	FA2-102-01, FA2-103-01, FA2-105-01, FA2-111-01, FA7-101-01
FA2-105-01	Ceiling	<u>FA2-201-01</u> , FA2-203-01
	Wall	FA2-104-01, FA2-106-01, FA2-111-01, FA7-102-01
FA2-106-01	Ceiling	FA2-204-01, <u>FA2-206-01</u>
	Wall	FA2-105-01, FA2-107-01, FA2-112-01, FA7-103-01
FA2-107-01	Ceiling	FA2-205-01, <u>FA2-206-01</u>
	Wall	FA2-106-01, FA2-108-01, FA2-109-01, FA2-112-01, FA7-104-01
FA2-108-01	Ceiling	FA2-205-01, FA2-206-01, FA2-423-01 <u>FA2-509-01</u>
	Wall	FA2-107-01, FA2-109-01, FA2-112-01, FA2-205-01, FA2-206-01, <u>FA2-314-01</u> , FA2-321-01, <u>FA2-423-01</u> , FA3-110-01, FA3-111-03, FA3-114-01, FA6-101-04, FA6-101-15 , <u>FA7-104-01</u>
FA2-109-01	Ceiling	FA2-205-01 <u>FA2-112-01</u>
	Wall	FA2-107-01, FA2-108-01, FA2-112-01
FA2-110-01	Ceiling	Roof
	Wall	FA2-112-01, FA2-206-01, FA2-321-01, FA2- 423 <u>19</u> -01, FA2-509-01, FA2-602-01, FA2-604-01, FA3-109-03, FA3-110-01, FA3-114-01
FA2-111-01	Ceiling	FA2-151-04, FA2-201-01, <u>FA2-202-01</u> , <u>FA2-203-01</u>
	Wall	FA2-101-01, FA2-102-01, FA2-103-01, FA2-104-01, FA2-105-01, FA2-112-01, FA2-114-02, FA2-114-03, FA2-123-02, FA2-151-01, FA2-154-02, FA3-101-01, <u>FA3-102-01</u> , FA3-106-01
FA2-112-01	Ceiling	FA2-152-04 , <u>FA2-204-01</u> , <u>FA2-205-01</u> , FA2-206-01
	Floor	<u>FA2-109-01</u>
	Wall	FA2-106-01, FA2-107-01, FA2-108-01, FA2-109-01, FA2-110-01, FA2-111-01, FA2-115-02, FA2-115-03, FA2-123-02, FA2-152-01, FA2-153-02, FA3-110-01, FA3-112-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 5 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-113-01	Ceiling	FA2-154-01
	Wall	FA2-113-02, FA2-113-03, FA2-123-02
FA2-113-02	Ceiling	FA2-154-01
	Wall	FA2-113-01, FA2-113-03, FA2-113-04, FA2-121-01, FA2-123-02
FA2-113-03	Ceiling	FA2-154-01, FA2-154-02
	Wall	FA2-113-01, FA2-113-02, FA2-121-01
FA2-113-04	Ceiling	FA2-155-01, FA2-210-10
	Floor	FA2-121-01
	Wall	FA2-113-02, FA2-121-01, FA2-121-02, FA2-155-01
FA2-114-01	Ceiling	FA2-151-01
	Wall	FA2-114-02, FA2-114-03, FA2-123-02
FA2-114-02	Ceiling	FA2-151-01
	Wall	FA2-111-01, FA2-114-01, FA2-114-03, FA2-123-02
FA2-114-03	Ceiling	FA2-151-01, FA2-154-02
	Wall	FA2-111-01, FA2-114-01, FA2-114-02, FA2-121-01, <u>FA3-106-01</u> , <u>FA3-117-01</u> , <u>FA3-119-01</u> , <u>FA3-129-01</u> , <u>FA3-132-01</u>
FA2-115-01	Ceiling	FA2-152-01
	Wall	FA2-115-02, FA2-115-03, FA2-123-02
FA2-115-02	Ceiling	FA2-152-01
	Wall	FA2-112-01, FA2-115-01, FA2-115-03, FA2-123-02
FA2-115-03	Ceiling	FA2-152-01, FA2-153-02
	Wall	FA2-112-01, FA2-115-01, FA2-115-02, FA2-124-01, FA4-101-01
FA2-116-01	Ceiling	FA2-153-01
	Wall	FA2-116-02, FA2-116-03, FA2-123-02
FA2-116-02	Ceiling	FA2-153-01
	Wall	FA2-116-01, FA2-116-03, FA2-123-02, FA2-127-01, FA2-130-01
FA2-116-03	Ceiling	FA2-153-01, FA2-153-02
	Wall	FA2-116-01, FA2-116-02, FA2-124-01, FA2-130-01, FA4-101-01, FA4-101-02

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 6 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-118-01	Ceiling	Roof
	Wall	FA2-119-01, FA2-128-01, FA2-128-02, FA2-130-01, FA2-209-05, FA2-210-21, <u>FA2-123-01, FA2-214-07,</u> FA2-418-01, FA4-101-03, FA4-101-17, FA4-101-20, FA4-101-24
FA2-119-01	Ceiling	Roof
	Wall	FA2-118-01, FA2-128-01, FA2-128-02, FA2-130-01, FA2-209-05, FA2-210-21, <u>FA2-213-01, FA2-214-07,</u> FA2-418-01, FA4-101-03, FA4-101-17, FA4-101-20, FA4-101-24
FA2-121-01	Ceiling	FA2-113-04, FA2-154-02, FA2-155-01, <u>Roof</u>
	Wall	FA2-113-02, FA2-113-03, FA2-113-04, FA2-114-03, FA2-121-02, FA2-122-01, FA2-123-02, <u>FA3-115-01, FA3-117-01</u>
FA2-121-02	Ceiling	FA2-210-10
	Wall	FA2-113-04, FA2-121-01, FA2-122-01, FA2-155-01
FA2-122-01	Ceiling	FA2-210-13
	Floor	FA2-210-10
	Wall	FA2-121-01, FA2-121-02, FA2-155-01, FA2-209-03, FA2-209-04, FA2-209-06, FA2-210-10, FA2-210-13
FA2-123-02	Ceiling	FA2-155-01, FA2-211-01
	Wall	FA2-111-01, FA2-112-01, FA2-113-01, FA2-113-02, FA2-114-01, FA2-114-02, FA2-115-01, FA2-115-02, FA2-116-01, FA2-116-02, FA2-121-01, FA2-124-01, FA2-125-01, FA2-127-01
FA2-124-01	Ceiling	FA2-153-02
	Wall	FA2-115-03, FA2-116-03, FA2-123-02, FA4-101-01
FA2-125-01	Ceiling	FA2-127-04, FA2-127-05
	Wall	FA2-123-02, FA2-126-01, FA2-127-01
FA2-126-01	Ceiling	FA2-127-04
	Wall	FA2-125-01, FA2-127-01
FA2-127-01	Ceiling	FA2-127-03, FA2-127-04
	Wall	FA2-116-02, FA2-123-02, FA2-125-01, FA2-126-01, FA2-129-01, FA2-130-01
FA2-127-02	Ceiling	FA2-127-06, FA2-209-05, FA2-210-11, FA2-210-12 <u>FA2-213-01,</u> <u>FA2-214-01, FA2-214-02</u>
	Floor	FA2-127-06, FA2-128-02, FA2-129-01, FA2-130-01
	Wall	FA2-127-04, FA2-127-06, FA2-127-07, FA2-128-01, FA2-128-02

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 7 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-127-03	Ceiling	FA2-128-02, FA2-209-03
	Floor	FA2-127-01
	Wall	FA2-127-04, FA2-127-05, FA2-128-01, FA2-153-01, FA2-155-01
FA2-127-04	Ceiling	FA2-128-02, FA2-128-03, FA2-128-04, FA2-209-01
	Floor	FA2-125-01, FA2-126-01, FA2-127-01
	Wall	FA2-127-02, FA2-127-03, FA2-127-05
FA2-127-05	Ceiling	FA2-209-01, FA2-209-02
	Floor	FA2-125-01
	Wall	FA2-127-03, FA2-127-04, FA2-155-01
FA2-127-06	Ceiling	FA2-127-02
	Floor	FA2-127-02
	Wall	FA2-127-02, FA2-128-02
FA2-127-07	Ceiling	FA2-127-08, FA2-209-05 FA2-213-01, FA2-322-01
	Floor	FA2-128-02, FA2-153-01
	Wall	FA2-127-02, FA2-128-02, FA2-153-01, FA2-212-02, FA4-101-02, FA4-101-04
FA2-127-08	Ceiling	FA2-210-13, FA2-214-07 , FA2-411-01, FA2-417-01
	Floor	FA2-127-07, FA2-153-01, FA2-153-04, FA2-212-02, FA2-322-01
	Wall	FA2-153-05, FA2-209-05 FA2-213-01, FA2-322-01, FA2-408-01, FA2-411-01, FA2-418-01
FA2-128-01	Ceiling	FA2-128-02
	Floor	FA2-130-01
	Wall	FA2-118-01, FA2-119-01, FA2-127-02, FA2-127-03, FA2-153-01, FA2-153-02, FA4-101-03
FA2-128-02	Ceiling	FA2-127-02, FA2-127-07, FA2-152-03, FA2-209-05 , FA2-210-13, FA2-213-01
	Floor	FA2-127-03, FA2-127-04, FA2-128-01, FA2-153-02
	Wall	FA2-118-01, FA2-119-01, FA2-127-02, FA2-127-06, FA2-127-07, FA2-128-03, FA2-128-04, FA2-152-03, FA2-152-04, FA2-153-01, FA2-153-03, FA2-153-04, FA2-208-01, FA2-209-01, FA2-209-03, FA2-212-01, FA2-212-02, FA4-101-02, FA4-101-03, FA4-101-04

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 8 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-128-03	Ceiling	FA2-210-13
	Floor	FA2-127-04, FA2-128-04
	Wall	FA2-128-02, FA2-128-04
FA2-128-04	Ceiling	FA2-128-03, FA2-210-13
	Floor	FA2-127-04
	Wall	FA2-128-02, FA2-128-03, FA2-209-01
FA2-129-01	Ceiling	FA2-127-02
	Wall	FA2-127-01, FA2-130-01
FA2-130-01	Ceiling	FA2-127-02, FA2-128-01
	Wall	FA2-116-02, FA2-116-03, FA2-118-01, FA2-119-01, FA2-127-01, FA2-129-01, FA4-101-03
FA2-151-01	Ceiling	FA2-151-02, FA2-151-03, FA2-151-04, FA2-151-06, FA2-319-01
	Floor	FA2-114-01, FA2-114-02, FA2-114-03
	Wall	FA2-111-01, FA2-151-02, FA2-151-03, FA2-151-04, FA2-154-02
FA2-151-02	Ceiling	FA2-151-06
	Floor	FA2-151-01
	Wall	FA2-151-01, FA2-151-03, FA2-151-04
FA2-151-03	Ceiling	FA2-151-05, FA2-209-04, FA2-316-01
	Floor	FA2-151-01, FA2-151-04, FA2-209-03
	Wall	FA2-151-01, FA2-151-02, FA2-151-04, FA2-154-03, FA2-207-01, FA2-209-03, <u>FA3-105-02</u>
FA2-151-04	Ceiling	FA2-151-03, FA2-151-06, FA2-316-01, FA2-320-01
	Floor	FA2-111-01, FA2-151-01, FA2-154-02
	Wall	FA2-151-01, FA2-151-02, FA2-151-03, FA2-152-04, FA2-201-01, <u>FA2-202-01, FA2-203-01</u> , FA2-207-01, FA2-209-03, <u>FA3-105-02, FA3-130-01</u>
FA2-151-05	Ceiling	FA2-409-01
	Floor	FA2-151-03
	Wall	FA1-101-04, FA2-151-06, FA2-154-05, FA2-207-01, FA2-316-01, FA2-319-01
FA2-151-06	Ceiling	FA2-409-01, FA2-420-01
	Floor	FA2-151-01, FA2-151-02, FA2-151-04
	Wall	FA1-101-04, FA2-151-05, FA2-152-06, FA2-319-01, FA2-320-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 9 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-152-01	Ceiling	FA2-152-02, FA2-152-03, FA2-152-04, FA2-152-06, FA2-318-01
	Floor	FA2-115-01, FA2-115-02, FA2-115-03
	Wall	FA2-112-01, FA2-152-02, FA2-152-03, FA2-152-04, FA2-153-02
FA2-152-02	Ceiling	FA2-152-06
	Floor	FA2-152-01
	Wall	FA2-152-01, FA2-152-03, FA2-152-04
FA2-152-03	Ceiling	FA2-152-05, FA2-209-05 FA2-213-01, FA2-317-01
	Floor	FA2-128-02, FA2-152-01, FA2-152-04
	Wall	FA2-128-02, FA2-152-01, FA2-152-02, FA2-152-04, FA2-153-03, FA2-208-01, FA4-101-04
FA2-152-04	Ceiling	FA2-152-03, FA2-152-06, FA2-317-01, FA2-321-01
	Floor	FA2-112-01 , FA2-152-01, FA2-153-02
	Wall	FA2-128-02, FA2-151-04, FA2-152-01, FA2-152-02, FA2-152-03, FA2-204-01 , FA2-205-01 , FA2-206-01, FA2-208-01, FA4-101-04
FA2-152-05	Ceiling	FA2-410-01
	Floor	FA2-152-03
	Wall	FA1-101-05, FA2-152-06, FA2-153-05, FA2-208-01, FA2-317-01, FA2-318-01
FA2-152-06	Ceiling	FA2-410-01, FA2-419-01
	Floor	FA2-152-01, FA2-152-02, FA2-152-04
	Wall	FA1-101-05, FA2-151-06, FA2-152-05, FA2-318-01, FA2-321-01
FA2-153-01	Ceiling	FA2-127-07, FA2-127-08, FA2-153-03, FA2-153-04, FA2-322-01
	Floor	FA2-116-01, FA2-116-02, FA2-116-03
	Wall	FA2-127-03, FA2-127-07, FA2-128-01, FA2-128-02, FA2-153-02, FA2-153-03, FA2-153-04, FA2-212-02
FA2-153-02	Ceiling	FA2-128-02, FA2-152-04
	Floor	FA2-115-03, FA2-116-03, FA2-124-01
	Wall	FA2-112-01, FA2-128-01, FA2-152-01, FA2-153-01, FA4-101-01, FA4-101-02
FA2-153-03	Ceiling	FA2-153-05
	Floor	FA2-153-01
	Wall	FA2-128-02, FA2-152-03, FA2-153-01, FA2-153-04, FA2-208-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 10 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-153-04	Ceiling	FA2-127-08, FA2-153-05, FA2-212-02
	Floor	FA2-153-01
	Wall	FA2-128-02, FA2-153-01, FA2-153-03, FA2-212-01, FA2-212-02
FA2-153-05	Ceiling	FA2-154-06, FA2-210-13, FA2-408-01, FA2-411-01, <u>FA2-417-01</u> , FA2-418-01, FA2-422-01
	Floor	FA2-153-03, FA2-153-04, FA2-209-05 , FA2-211-01 , <u>FA2-213-01</u> , FA2-212-02, FA2-317-01
	Wall	FA1-101-06, FA1-101-07, FA2-127-08, FA2-152-05, FA2-154-06, FA2-208-01, FA2-209-04, FA2-209-05 , FA2-210-13, <u>FA2-213-01</u> , FA2-317-01, FA2-322-01, FA4-101-10, FA4-101-13
FA2-154-01	Ceiling	FA2-154-03, FA2-154-04, FA2-154-05, FA2-323-01, FA2-323-02
	Floor	FA2-113-01, FA2-113-02, FA2-113-03
	Wall	FA2-154-02, FA2-154-03, FA2-154-04, FA2-155-01, FA2-209-03, FA2-212-02
FA2-154-02	Ceiling	FA2-151-04, FA2-209-03
	Floor	FA2-113-03, FA2-114-03, FA2-121-01
	Wall	FA2-111-01, FA2-151-01, FA2-154-01, FA2-155-01, <u>FA3-117-01</u> , <u>FA3-119-01</u> , <u>FA3-129-01</u>
FA2-154-03	Ceiling	FA2-154-05
	Floor	FA2-154-01
	Wall	FA2-151-03, FA2-154-01, FA2-154-04, FA2-207-01, FA2-209-03
FA2-154-04	Ceiling	FA2-154-05, FA2-154-06, FA2-212-02
	Floor	FA2-154-01
	Wall	FA2-154-01, FA2-154-03, FA2-209-03, FA2-211-01, FA2-212-02
FA2-154-05	Ceiling	FA2-209-06, FA2-209-07, FA2-416-01, FA2-421-01
	Floor	FA2-154-01, FA2-154-03, FA2-154-04, FA2-209-04, FA2-212-02, FA2-316-01
	Wall	FA1-101-07, FA2-151-05, FA2-154-06, FA2-207-01, FA2-209-04, FA2-316-01, FA2-323-01, FA2-323-02, <u>FA3-105-02</u>
FA2-154-06	Ceiling	FA2-408-01
	Floor	FA2-153-05, FA2-154-04, FA2-210-13, FA2-211-01, FA2-212-02
	Wall	FA1-101-07, FA2-153-05, FA2-154-05, FA2-209-04, FA2-210-13, FA2-323-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 11 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-155-01	Ceiling	FA2-209-03
	Floor	FA2-113-04, FA2-121-01, FA2-123-02
	Wall	FA2-113-04, FA2-121-02, FA2-122-01, FA2-127-03, FA2-127-05, FA2-154-01, FA2-154-02
FA2-201-01	Ceiling	FA2-202-01, FA2- 3 203-01, FA2-307-02, FA2-308-03 FA2-302-01, FA2-320-01
	Floor	FA2-102-01, <u>FA2-104-01, FA2-105-01</u> , FA2-111-01
	Wall	FA2-101-01, FA2-102-01, FA2-151-04, FA2-202-01, FA2-203-01, FA2-206-01, FA3-103-03, FA3-104-03, FA3-130-01 , FA6-101-04
FA2-202-01	Ceiling	FA2-203-01, FA2-302-01, FA2-303-01, FA2-304-02, <u>FA2-307-01</u> , FA2-307-02, FA2-308-03, FA2-320-01, FA2-420-01
	Floor	FA2-102-01, FA2-103-01 , FA2-104-01, <u>FA2-111-01</u> , FA2-201-01
	Wall	FA2-102-01, <u>FA2-151-04</u> , FA2-201-01, FA2-203-01, FA2-302-01, FA2-320-01, FA3-104-03, FA6-101-04, FA6-101-15
FA2-203-01	Ceiling	<u>FA2-303-01, FA2-304-02</u> , FA2-307-01 2 , FA2-308-03
	Floor	FA2-105-01, <u>FA2-201-01</u> , FA2-202-01, <u>FA2-111-01</u>
	Wall	<u>FA2-151-04</u> , FA2-201-01, FA2-202-01, FA2-204-01, FA6-101-04
FA2-204-01	Ceiling	FA2-308-03, FA2-312-01 <u>FA2-309-02, FA2-312-02, FA2-314-01</u>
	Floor	FA2-106-01, <u>FA2-112-01</u> , FA2-205-01, <u>FA2-206-01</u>
	Wall	<u>FA2-152-04</u> , FA2-203-01, FA2-205-01, FA2-206-01, FA6-101-04
FA2-205-01	Ceiling	FA2-204-01, FA2-308-03, FA2-309-02, FA2-312-02 1 , FA2-313-01, FA2-314-01, FA2-321-01, FA2-423-01
	Floor	FA2-107-01, FA2-108-01, FA2- 109 12-01, FA2-206-01
	Wall	FA2-108-01, FA2-204-01, FA2-206-01, FA2-313-01, FA2-321-01, FA3-111-03, FA6-101-04, FA6-101-15, FA2-152-04
FA2-206-01	Ceiling	<u>FA2-204-01</u> , FA2-205-01, FA2-308-03, FA2-312-02, FA2-314-01 , FA2-321-01
	Floor	<u>FA2-106-01, FA2-107-01</u> , FA2-108-01, FA2-112-01
	Wall	FA2-108-01, FA2-110-01, FA2-152-04, FA2-201-01, FA2-204-01, FA2-205-01, FA3-109-03, FA3-111-03, FA6-101-04

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 12 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-207-01	Ceiling	Roof
	Wall	FA1-101-04, FA1-101-07, FA1-101-15, FA1-101-18, FA1-101-23, FA1-101-26, FA2-151-03, FA2-151-04, FA2-151-05, FA2-154-03, FA2-154-05, FA2-209-03, FA2-209-04, FA2-209-06, FA2-210-15, FA2-316-01, FA2-409-01, FA2-409-02, FA2-416-01, FA2-421-01, FA2-506-01
FA2-208-01	Ceiling	Roof
	Wall	FA1-101-05, FA1-101-06, FA1-101-16, FA1-101-17, FA1-101-24, FA1-101-25, FA2-128-02, FA2-152-03, FA2-152-04, FA2-152-05, FA2-153-03, FA2-153-05, FA2-209-05 , FA2-210-21 , <u>FA2-123-01</u> , <u>FA2-214-07</u> , FA2-317-01, FA2-410-01, FA2-410-02, FA2-411-01, FA2-418-01, FA2-422-01, FA2-511-01
FA2-209-01	Ceiling	FA2-209-02, FA2-210-13
	Floor	FA2-127-04, FA2-127-05
	Wall	FA2-128-02, FA2-128-04, FA2-209-02, FA2-209-03
FA2-209-02	Ceiling	FA2-210-13
	Floor	FA2-127-05, FA2-209-01
	Wall	FA2-209-01, FA2-209-03, FA2-212-02
FA2-209-03	Ceiling	FA2-151-03, FA2-209-04, FA2-212-02
	Floor	FA2-127-03, FA2-154-02, FA2-155-01
	Wall	FA2-122-01, FA2-128-02, FA2-151-03, FA2-151-04, FA2-154-01, FA2-154-03, FA2-154-04, FA2-207-01, FA2-209-01, FA2-209-02, FA2-210-10, FA2-211-01, FA2-212-02
FA2-209-04	Ceiling	FA2-154-05, FA2-209-06, FA2-210-13, <u>FA2-210-22</u>
	Floor	FA2-151-03, FA2-209-03, FA2-212-02
	Wall	FA2-122-01, FA2-153-05, FA2-154-05, FA2-154-06, FA2-207-01, FA2-209-05 , FA2-210-10, FA2-210-13, <u>FA2-213-01</u> , FA2-316-01, FA2-323-01, FA2-323-02
FA2-209-05	Ceiling	FA2-153-05, FA2-210-13, FA2-418-01
	Floor	FA2-127-02, FA2-127-07, FA2-128-02, FA2-152-03
	Wall	FA2-118-01, FA2-119-01, FA2-127-08, FA2-153-05, FA2-208-01, FA2-209-04, FA2-210-11, FA2-210-12, FA2-210-13, FA2-317-01, FA2-322-01, FA4-101-02, FA4-101-10, FA4-101-13, FA4-101-15, FA4-101-17

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 13 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-209-06	Ceiling	FA2-210-13, FA2-210-15
	Floor	FA2-154-05, FA2-209-04
	Wall	FA2-122-01, FA2-207-01, FA2-209-07, FA2-210-10, FA2-210-13, <u>FA2-210-22</u> , FA2-408-01, FA2-416-01, FA2-418-01, FA2-421-01
FA2-209-07	Ceiling	FA2-210-13, FA2-506-01
	Floor	FA2-154-05, FA2-323-01
	Wall	FA1-101-18, FA2-209-06, FA2-408-01, FA2-416-01
FA2-210-10	Ceiling	FA2-122-01, FA2-210-13, <u>FA2-210-22</u>
	Floor	FA2-113-04, FA2-121-02
	Wall	FA2-122-01, FA2-209-03, FA2-209-04, FA2-209-06, FA2-210-13, <u>FA2-210-22</u>
FA2-210-11	Ceiling	FA2-210-14
	Floor	FA2-127-02
	Wall	FA2-209-05, FA2-210-12, FA2-210-13
FA2-210-12	Ceiling	FA2-210-14, FA2-418-01
	Floor	FA2-127-02
	Wall	FA2-209-05, FA2-210-11, FA2-210-13
FA2-210-13	Ceiling	FA2-154-06, FA2-408-01, FA2-418-01, Roof
	Floor	FA2-122-01, FA2-127-08, FA2-128-02, FA2-128-03, FA2-128-04, FA2-153-05, FA2-209-01, FA2-209-02, FA2-209-04, FA2-209-05 , FA2-209-06, FA2-209-07, FA2-210-10, <u>FA2-210-22</u> , <u>FA2-213-01</u> , <u>FA2-214-03</u> , FA2-210-14 , FA2-408-01, FA2-411-01, FA2-416-01, FA2-418-01
	Wall	FA2-122-01, FA2-153-05, FA2-154-06, FA2-209-04, FA2-209-05 , FA2-209-06, FA2-210-10, FA2-210-11, FA2-210-12, FA2-210-14 , FA2-210-15, FA2-210-18 , FA2-210-19, <u>FA2-210-22</u> , <u>FA2-213-01</u> , <u>FA2-214-01</u> , <u>FA2-214-02</u> , <u>FA2-214-03</u> , <u>FA2-214-06</u> , <u>FA2-214-07</u> , FA2-210-21, FA2-418-01, FA2-506-01
FA2-210-14	Ceiling	FA2-210-13, FA2-210-18
	Floor	FA2-210-11, FA2-210-12
	Wall	FA2-210-13, FA2-418-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 14 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-210-15	Ceiling	FA2-601-02, Roof
	Floor	FA2-209-06, FA2-421-01
	Wall	FA2-207-01, FA2-210-13, FA2-409-02, FA2-506-01, FA2-507-01, FA2-513-01
FA2-210-16	Ceiling	FA2-210-21
	Floor	FA2-411-01, FA2-417-01
	Wall	FA2-210-17, FA2-210-21, FA2-511-01
FA2-210-17	Ceiling	FA2-210-21
	Floor	FA2-411-01
	Wall	FA1-101-25, FA2-210-16, FA2-210-21, FA2-506-01, FA2-511-01
FA2-210-18	Ceiling	Roof
	Floor	FA2-210-14, FA2-418-01
	Wall	FA2-210-13, FA2-210-21
FA2-210-19	Ceiling	Roof
	Floor	FA2-506-01
	Wall	FA1-101-25, FA1-101-26, FA2-210-13, FA2-210-21, FA2-506-01
FA2-210-21	Ceiling	Roof
	Floor	FA2-210-16, FA2-210-17, FA2-411-01, FA2-417-01, FA2-418-01, FA2-422-01
	Wall	FA1-101-25, FA2-118-01, FA2-119-01, FA2-208-01, FA2-210-13, FA2-210-16, FA2-210-17, FA2-210-18, FA2-210-19, FA2-410-02, FA2-506-01, FA2-510-02, FA2-511-01, FA4-101-02, FA4-101-23, FA4-101-24
<u>FA2-210-22</u>	<u>Ceiling</u>	<u>FA2-210-13</u>
	<u>Floor</u>	<u>FA2-209-04, FA2-210-10</u>
	<u>Wall</u>	<u>FA2-209-06, FA2-210-10, FA2-210-13</u>
FA2-211-01	Ceiling	FA2-153-05 , FA2-154-06, FA2-212-02
	Floor	FA2-123-02
	Wall	FA1-101-01, FA2-154-04, FA2-209-03, FA2-212-01, FA2-212-02
FA2-212-01	Ceiling	FA2-212-02
	Wall	FA1-101-01, FA2-128-02, FA2-153-04, FA2-211-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 15 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-212-02	Ceiling	FA2-127-08, FA2-153-05, FA2-154-05, FA2-154-06, FA2-209-04, FA2-323-01
	Floor	FA2-153-04, FA2-154-04, FA2-209-03, FA2-211-01, FA2-212-01
	Wall	FA1-101-01, FA2-127-07, FA2-128-02, FA2-153-01, FA2-153-04, FA2-154-01, FA2-154-04, FA2-209-02, FA2-209-03, FA2-211-01
<u>FA2-213-01</u>	<u>Ceiling</u>	<u>FA2-153-05, FA2-210-13, FA2-418-01</u>
	<u>Floor</u>	<u>FA2-127-02, FA2-127-07, FA2-128-02, FA2-152-03</u>
	<u>Wall</u>	<u>FA2-118-01, FA2-119-01, FA2-127-08, FA2-153-05, FA2-208-01, FA2-209-04, FA2-210-13, FA2-214-01, FA2-214-02, FA2-317-01, FA2-322-01, FA4-101-02, FA4-101-10, FA4-101-13, FA4-101-15, FA4-101-17</u>
<u>FA2-214-01</u>	<u>Ceiling</u>	<u>FA2-214-03</u>
	<u>Floor</u>	<u>FA2-127-02</u>
	<u>Wall</u>	<u>FA2-213-01, FA2-214-02, FA2-210-13</u>
<u>FA2-214-02</u>	<u>Ceiling</u>	<u>FA2-214-03, FA2-418-01</u>
	<u>Floor</u>	<u>FA2-127-02</u>
	<u>Wall</u>	<u>FA2-213-01, FA2-214-01, FA2-210-13</u>
<u>FA2-214-03</u>	<u>Ceiling</u>	<u>FA2-210-13, FA2-214-06</u>
	<u>Floor</u>	<u>FA2-214-01, FA2-214-02</u>
	<u>Wall</u>	<u>FA2-210-13, FA2-418-01</u>
<u>FA2-214-04</u>	<u>Ceiling</u>	<u>FA2-214-07</u>
	<u>Floor</u>	<u>FA2-411-01</u>
	<u>Wall</u>	<u>FA1-101-25, FA2-214-05, FA2-214-07, FA2-506-01, FA2-511-01</u>
<u>FA2-214-05</u>	<u>Ceiling</u>	<u>FA2-214-07</u>
	<u>Floor</u>	<u>FA2-411-01, FA2-417-01</u>
	<u>Wall</u>	<u>FA2-214-04, FA2-214-07, FA2-511-01</u>
<u>FA2-214-06</u>	<u>Ceiling</u>	<u>Roof</u>
	<u>Floor</u>	<u>FA2-214-03, FA2-418-01</u>
	<u>Wall</u>	<u>FA2-210-13, FA2-214-07</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 16 of 36)

Fire Zone	Interface	Adjacent Fire Zones
<u>FA2-214-07</u>	<u>Ceiling</u>	<u>Roof</u>
	<u>Floor</u>	<u>FA2-127-08, FA2-214-04, FA2-214-05, FA2-411-01, FA2-417-01, FA2-418-01, FA2-422-01</u>
	<u>Wall</u>	<u>FA1-101-25, FA2-118-01, FA2-119-01, FA2-208-01, FA2-210-13, FA2-210-19, FA2-214-04, FA2-214-05, FA2-214-06, FA2-410-02, FA2-506-01, FA2-510-02, FA2-511-01, FA4-101-02, FA4-101-23, FA4-101-24</u>
FA2-302-01	Ceiling	<u>FA2-401-01</u> , FA2-402-01
	Floor	<u>FA2-201-01</u> , FA2-202-01, <u>FA2-304-01</u>
	Wall	FA2-202-01 , FA2-303-01, FA2-304-01, FA2-304-02 <u>FA2-307-01</u> , FA2-320-01, FA6-101-15
FA2-303-01	Ceiling	FA2-401-01, <u>FA2-424-01</u>
	Floor	FA2-201-01 , FA2-202-01, <u>FA2-203-01</u> , <u>FA2-307-01</u> , <u>FA2-320-01</u>
	Wall	<u>FA2-102-01</u> , FA2-302-01, FA2-307-01, FA2-307-02, <u>FA2-308-02</u> , <u>FA2-308-03</u> , FA2-320-01
FA2-304-01	Ceiling	FA2-307-01, FA2-402-01
	Floor	FA2-304-02, <u>FA2-308-02</u>
	Wall	FA2-302-01, FA2-307-01, FA2-308-02, FA6-101-15 <u>FA2-320-01</u>
FA2-304-02	Ceiling	FA2-304-01
	Floor	FA2-202-01, <u>FA2-203-01</u>
	Wall	FA2-302-01 , FA2-307-01 , FA2-307-02, FA2-308-03, FA6-101-15
FA2-307-01	Ceiling	<u>FA2-303-01</u> , FA2-401-01, FA2-402-01
	Floor	FA2-203-01 , FA2-304-01 , FA2-307-02, FA2-308-02
	Wall	<u>FA2-302-01</u> , FA2-303-01, FA2-304-01, FA2-304-02 , FA2-308-02, FA2-308-03 , FA2-320-01 , FA6-101-15
FA2-307-02	Ceiling	FA2-307-01
	Floor	FA2-201-01 , FA2-202-01, <u>FA2-203-01</u>
	Wall	FA2-303-01 , FA2-304-02, FA2-308-03, FA2-320-01
FA2-308-01	Ceiling	FA2-312-09 <u>01</u> , FA2-406-01, FA2-413-01
	Floor	FA2-308-03
	Wall	FA2-308-02, FA2-309-01, FA2-312-01, <u>FA2-314-01</u> , FA2-321-01, FA6-101-15

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 17 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-308-02	Ceiling	FA2-307-01, FA2-405-01, FA2-412-01
	Floor	FA2-308-03
	Wall	<u>FA2-303-01</u> , FA2-304-01, FA2-307-01, FA2-308-01, FA2-320-01, FA6-101-15
FA2-308-03	Ceiling	FA2-308-01, FA2-308-02
	Floor	FA2-201-01 , FA2-202-01, FA2-203-01, FA2-204-01, FA2-205-01, FA2-206-01
	Wall	<u>FA2-303-01</u> , FA2-304-02, FA2-307-01 , FA2-307-02, FA2-309-02, FA2-312-01, FA2-312-02, FA2-320-01, FA2-321-01, FA6-101-15 <u>FA2-314-01</u>
FA2-309-01	Ceiling	FA2-312-01, FA2-404-01
	Floor	<u>FA2-308-01</u> , FA2-309-02
	Wall	FA2-308-01, FA2-312-01, FA2-313-01, FA6-101-15 <u>FA2-321-01</u>
FA2-309-02	Ceiling	FA2-309-01
	Floor	<u>FA2-204-01</u> , FA2-205-01
	Wall	FA2-308-03, FA2-312-01 , FA2-312-02, FA2-313-01, FA6-101-15
FA2-312-01	Ceiling	<u>FA2-313-01, FA2-314-01</u> , FA2-403-01, FA2-404-01
	Floor	FA2-204-01, FA2-308-01, FA2-309-01 , FA2-312-02
	Wall	FA2-308-01, FA2-308-03 , FA2-309-01, FA2-309-02 <u>FA2-313-01</u> , FA2-314-01, FA2-321-01, FA6-101-15
FA2-312-02	Ceiling	FA2-312-01
	Floor	<u>FA2-204-01</u> , FA2-205-01, FA2-206-01
	Wall	FA2-308-03, FA2-309-02, FA2-314-01, FA2-321-01
FA2-313-01	Ceiling	<u>FA2-403-01</u> , FA2-404-01
	Floor	FA2-205-01, <u>FA2-309-01</u>
	Wall	FA2-205-01 , FA2-309-01, FA2-309-02 <u>FA2-312-01</u> , FA2-314-01, FA2-321-01, FA6-101-15
FA2-314-01	Ceiling	FA2-403-01, <u>FA2-423-01</u>
	Floor	<u>FA2-204-01</u> , FA2-205-01, FA2-206-01 <u>FA2-312-01, FA2-321-01</u>
	Wall	<u>FA2-108-01, FA2-308-01, FA2-308-03</u> , FA2-312-01, FA2-312-02, FA2-313-01, FA2-321-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 18 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-316-01	Ceiling	FA2-154-05, FA2-421-01
	Floor	FA2-151-03, FA2-151-04
	Wall	FA2-151-05, FA2-154-05, FA2-207-01, FA2-209-04, FA2-319-01, FA2-320-01, <u>FA3-105-02</u> , <u>FA3-130-01</u>
FA2-317-01	Ceiling	FA2-153-05, FA2-422-01
	Floor	FA2-152-03, FA2-152-04
	Wall	FA2-152-05, FA2-153-05, FA2-208-01, FA2-209-05 <u>FA2-213-01</u> , FA2-318-01, FA2-321-01, FA4-101-10
FA2-318-01	Ceiling	FA2-407-03
	Floor	FA2-152-01
	Wall	FA2-152-05, FA2-152-06, FA2-317-01, FA2-321-01
FA2-319-01	Ceiling	FA2-420-02
	Floor	FA2-151-01
	Wall	FA2-151-05, FA2-151-06, FA2-316-01, FA2-320-01
FA2-320-01	Ceiling	<u>FA2-303-01</u> , FA2-420-01, <u>FA2-424-01</u>
	Floor	FA2-151-04, FA2-201-01, FA2-202-01
	Wall	FA1-101-04, FA2-101-01, FA2-102-01, FA2-151-06, FA2-202-01 , FA2-302-01, FA2-303-01, <u>FA2-304-01</u> , FA2-307-01 , FA2-307-02 , FA2-308-02, FA2-308-03 , FA2-316-01, FA2-319-01, FA2-321-01, FA3-103-03 , FA3-104-03, <u>FA3-130-01</u>
FA2-321-01	Ceiling	FA2-419-01, FA2-423-01
	Floor	FA2-152-04, FA2-205-01, FA2-206-01
	Wall	FA1-101-05, FA2-108-01, FA2-110-01, FA2-152-06, FA2-205-01 , FA2-308-01, FA2-308-03 , FA2-312-01 , FA2-312-02 <u>FA2-309-01</u> , FA2-313-01, FA2-314-01, FA2-317-01, FA2-318-01, FA2-320-01, FA3-114-01, FA4-101-10
FA2-322-01	Ceiling	FA2-127-08
	Floor	FA2-127-07, FA2-153-01
	Wall	FA2-127-08, FA2-153-05, FA2-209-05 <u>FA2-213-01</u>
FA2-323-01	Ceiling	FA2-209-07
	Floor	FA2-154-01, FA2-212-02
	Wall	FA2-154-05, FA2-154-06, FA2-209-04, FA2-323-02

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 19 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-323-02	Ceiling	FA2-416-01
	Floor	FA2-154-01
	Wall	FA2-154-05, FA2-209-04, FA2-323-01
FA2-401-01	Ceiling	FA2-504-01, FA2-507-01, FA2-507 <u>1</u> -02
	Floor	<u>FA2-302-01</u> , FA2-303-01, FA2-307-01
	Wall	FA2-402-01, FA2-412-01, FA2-414-01, FA2-420 <u>4</u> -01
FA2-402-01	Ceiling	<u>FA2-504-01, FA2-507-01, FA2-50</u> <u>17</u> -02
	Floor	FA2-302-01, FA2-304-01, FA2-307-01
	Wall	FA2-401-01, FA2-412-01, FA2-414-01, FA2-420-01, FA6-101-15
FA2-403-01	Ceiling	FA2-50 <u>12</u> -01, FA2-503-01, FA2-508-01, FA2-508-02
	Floor	FA2-312-01, <u>FA2-313-01</u> , FA2-314-01
	Wall	FA2-404-01, FA2-413-01, FA2-415-01, FA2-419-01 , FA2-423-01
FA2-404-01	Ceiling	FA2-5 <u>10</u> <u>2</u> -01, <u>FA2-503-01, FA2-508-01, FA2-508-02</u>
	Floor	FA2-309-01, FA2-312-01 , FA2-313-01
	Wall	FA2-403-01, FA2-413-01, FA2-415-01, FA2-423-01, FA6-101-15 <u>FA2-419-01</u>
FA2-405-01	Ceiling	FA2-414-01
	Floor	FA2-308-02
	Wall	FA2-406-01, FA2-412-01, FA6-101-15
FA2-406-01	Ceiling	FA2-415-01
	Floor	FA2-308-01
	Wall	FA2-405-01, FA2-413-01, FA6-101-15
FA2-407-03	Ceiling	FA2-510-02
	Floor	FA2-318-01
	Wall	FA2-410-01, FA2-419-01, FA2-422-01, FA2-423-01
FA2-408-01	Ceiling	FA2-210-13, FA2-506-01
	Floor	FA2-153-05, FA2-154-06, FA2-210-13
	Wall	FA1-101-17, FA1-101-18, FA2-127-08, FA2-209-06, FA2-209-07, FA2-411-01, FA2-418-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 20 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-409-01	Ceiling	FA2-409-02
	Floor	FA2-151-05, FA2-151-06
	Wall	FA1-101-15, FA2-207-01, FA2-414-01, FA2-420-01, FA2-420-02, FA2-421-01
FA2-409-02	Ceiling	FA2-601-02, Roof
	Floor	FA2-409-01
	Wall	FA1-101-23, FA2-207-01, FA2-210-15, FA2-414-01, FA2-507-01, FA2-513-01
FA2-410-01	Ceiling	FA2-410-02, FA2-510-01, FA2-510-02
	Floor	FA2-152-05, FA2-152-06
	Wall	FA1-101-16, FA2-208-01, FA2-407-03, FA2-415-01, FA2-419-01, FA2-422-01
FA2-410-02	Ceiling	Roof
	Floor	FA2-410-01
	Wall	FA1-101-24, FA2-208-01, FA2-210-21 FA2-214-07, FA2-510-01, FA2-510-02
FA2-411-01	Ceiling	FA2-210-13, FA2-210-16, FA2-210-17, FA2-210-21 FA2-214-04, <u>FA2-214-05, FA2-214-07</u> , FA2-506-01, FA2-511-01
	Floor	FA2-127-08, FA2-153-05, <u>FA2-417-01</u>
	Wall	FA1-101-17, FA2-127-08, FA2-208-01, FA2-408-01, FA2-417-01, FA2-418-01
FA2-412-01	Ceiling	FA2-414-01
	Floor	FA2-308-02
	Wall	FA2-401-01, FA2-402-01, FA2-405-01, FA2-413-01, FA2-420-01, FA6-101-15
FA2-413-01	Ceiling	FA2-415-01
	Floor	FA2-308-01
	Wall	FA2-403-01, FA2-404-01, FA2-406-01, FA2-412-01, FA2-419-01, FA6-101-15
FA2-414-01	Ceiling	FA2-507-01, Roof
	Floor	FA2-405-01, FA2-412-01, FA2-420-01, FA2-504-01 , FA2-507-01, FA2-507-02
	Wall	FA1-101-15, FA1-101-23, FA1-101-24, FA2-401-01, FA2-402-01, FA2-409-01, FA2-409-02, FA2-415-01, FA2-420-01, FA2-501-02, FA2-504-01 , FA2-507-01, FA2-507-02, FA2-601-01, FA2-601-02

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 21 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-415-01	Ceiling	FA2-509-01, Roof
	Floor	FA2-406-01, FA2-413-01, FA2-419-01, FA2-509-01
	Wall	FA1-101-16, FA1-101-24, FA2-403-01, FA2-404-01, FA2-410-01, FA2-414-01, FA2-419-01, FA2-508-01, FA2-509-01, FA2-510-01, FA2-512-01
FA2-416-01	Ceiling	FA2-210-13, FA2-506-01
	Floor	FA2-154-05, FA2-323-02
	Wall	FA1-101-18, FA2-207-01, FA2-209-06, FA2-209-07
FA2-417-01	Ceiling	FA2-210-16, FA2-210-21 FA2-214-05, FA2-214-07, FA2-411-01
	Floor	FA2-127-08, FA2-153-05
	Wall	FA2-411-01, FA2-418-01
FA2-418-01	Ceiling	FA2-210-13, FA2-210-18, FA2-210-21 FA2-214-06, FA2-214-07
	Floor	FA2-153-05, FA2-209-05, FA2-210-12, FA2-210-13, FA2-213-01
	Wall	FA2-118-01, FA2-119-01, FA2-127-08, FA2-208-01, FA2-209-06, FA2-210-13, FA2-210-14 FA2-214-03, FA2-408-01, FA2-411-01, FA2-417-01, FA2-422-01, FA4-101-02, FA4-101-18, FA4-101-20
FA2-419-01	Ceiling	FA2-415-01, FA2-509-01, FA2-510-02
	Floor	FA2-152-06, FA2-321-01
	Wall	FA1-101-16, FA2-403-01 FA2-110-01, FA2-404-01, FA2-407-03, FA2-410-01, FA2-413-01, FA2-415-01, FA2-420-01, FA2-422-01, FA2-423-01, FA4-101-18
FA2-420-01	Ceiling	FA2-414-01, FA2-507-01
	Floor	FA2-102-01, FA2-151-06, FA2-202-01, FA2-320-01
	Wall	FA1-101-15, FA2-101-01, FA2-401-01, FA2-402-01, FA2-409-01, FA2-412-01, FA2-414-01, FA2-419-01, FA2-420-02, FA2-421-01, FA6-101-15 FA2-424-01
FA2-420-02	Ceiling	FA2-513-01
	Floor	FA2-319-01
	Wall	FA2-409-01, FA2-420-01, FA2-421-01
FA2-421-01	Ceiling	FA2-210-15
	Floor	FA2-154-05, FA2-316-01
	Wall	FA2-207-01, FA2-209-06, FA2-409-01, FA2-420-01, FA2-420-02

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 22 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-422-01	Ceiling	FA2-210-21 <u>FA2-214-07</u> , FA2-510-02
	Floor	FA2-153-05, FA2-317-01
	Wall	FA2-208-01, FA2-407-03, FA2-410-01, FA2-418-01, FA2-423-19-01, FA4-101-18
FA2-423-01	Ceiling	FA2-505-01, FA2-509-01, FA2-510-02
	Floor	FA2-108-01, FA2-205-04 <u>FA2-314-01</u> , FA2-321-01
	Wall	FA2-1408-01, FA2-403-01, FA2-404-01, FA2-407-03 , FA2-419-01, FA2-422-01, FA4-101-18, FA6-101-15
<u>FA2-424-01</u>	<u>Ceiling</u>	<u>FA2-507-01</u>
	<u>Floor</u>	<u>FA2-303-01, FA2-320-01</u>
	<u>Wall</u>	<u>FA2-101-01, FA2-102-01, FA2-401-01, FA2-420-01</u>
FA2-501-02	Ceiling	Roof
	Floor	FA2-402-1-01
	Wall	FA2-414-01, FA2-507-01, FA2-507-02, FA2-601-01, FA2-603-01
FA2-502-01	Ceiling	Roof
	Floor	FA2-403-4-01
	Wall	FA2-503-01, FA2-508-01, FA2-508-02, FA2-509-01
FA2-503-01	Ceiling	FA2-602-01, Roof
	Floor	FA2-403-4-01
	Wall	FA2-502-01, FA2-508-02, FA2-509-01
FA2-504-01	Ceiling	FA2-414-01 , FA2-601-01, FA2-601-02
	Floor	FA2-404-2-01
	Wall	FA2-414-01 , FA2-507-01, FA2-507-02
FA2-505-01	Ceiling	Roof
	Floor	FA2-423-01
	Wall	FA2-509-01, FA2-604-01
FA2-506-01	Ceiling	FA2-210-19, Roof
	Floor	FA2-209-07, FA2-408-01, FA2-411-01, FA2-416-01
	Wall	FA1-101-25, FA1-101-26, FA2-207-01, FA2-210-13, FA2-210-15, FA2-210-17 , FA2-210-19, FA2-210-21 <u>FA2-214-04, FA2-214-07</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 23 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-507-01	Ceiling	FA2-414-01, FA2-601-02, FA2-603-01, Roof
	Floor	FA2-102-01 , FA2-40 1 ² -01, FA2-414-01, FA2-420-01, FA2-424-01
	Wall	FA1-101-23, FA1-101-24, FA2-101-01, FA2-210-15, FA2-409-02, FA2-414-01, FA2-501-02, FA2-504-01, FA2-507-02, FA2-509-01, FA2-513-01, FA2-601-02
FA2-507-02	Ceiling	FA2-414-01, FA2-601-01, FA2-601-02
	Floor	FA2-40 1 ² -01
	Wall	FA2-414-01, FA2-501-02, FA2-504-01, FA2-507-01
FA2-508-01	Ceiling	Roof
	Floor	FA2-40 3 ⁴ -01
	Wall	FA2-415-01, FA2-502-01, FA2-508-02, FA2-509-01, FA2-512-01
FA2-508-02	Ceiling	FA2-604-01, Roof
	Floor	FA2-40 3 ⁴ -01
	Wall	FA2-502-01, FA2-503-01, FA2-508-01, FA2-509-01, FA2-512-01
FA2-509-01	Ceiling	FA2-415-01, FA2-602-01, FA2-604-01, Roof
	Floor	FA2-108-01 , FA2-415-01, FA2-419-01, FA2-423-01
	Wall	FA1-101-24, FA2-110-01, FA2-415-01, FA2-502-01, FA2-503-01, FA2-505-01, FA2-507-01, FA2-508-01, FA2-508-02, FA2-510-01, FA2-510-02, FA2-512-01, FA2-604-01, FA4-101-23
FA2-510-01	Ceiling	Roof
	Floor	FA2-410-01
	Wall	FA1-101-24, FA2-410-02, FA2-415-01, FA2-509-01, FA2-510-02
FA2-510-02	Ceiling	Roof
	Floor	FA2-407-03, FA2-410-01, FA2-419-01 , FA2-422-01, FA2-423-01
	Wall	FA2-210-21 FA2-214-07 , FA2-410-02, FA2-509-01, FA2-510-01, FA4-101-23
FA2-511-01	Ceiling	Roof
	Floor	FA2-411-01
	Wall	FA1-101-25, FA2-208-01, FA2-210-16 , FA2-210-17 , FA2-210-21 FA2-214-04 , FA2-214-05 , FA2-214-07

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 24 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-512-01	Ceiling	Roof
	Floor	FA2-404-01
	Wall	FA2-415-01, FA2-508-01, FA2-508-02, FA2-509-01, FA2-604-01
FA2-513-01	Ceiling	FA2-601-02
	Floor	FA2-420-02
	Wall	FA2-210-15, FA2-409-02, FA2-507-01
FA2-601-01	Ceiling	Roof
	Floor	FA2-504-01, FA2-507-02
	Wall	FA2-414-01, FA2-501-02, FA2-601-02, FA2-603-01
FA2-601-02	Ceiling	Roof
	Floor	FA2-210-15, FA2-409-02, FA2-504-01, FA2-507-01, FA2-507-02, FA2-513-01
	Wall	FA1-101-23, FA2-101-01, FA2-414-01, FA2-507-01, FA2-601-01, FA2-603-01
FA2-602-01	Ceiling	Roof
	Floor	FA2-503-01, FA2-509-01
	Wall	FA2-110-01, FA2-604-01
FA2-603-01	Ceiling	Roof
	Floor	FA2-507-01
	Wall	FA2-501-02, FA2-601-01, FA2-601-02
FA2-604-01	Ceiling	Roof
	Floor	FA2-508-02, FA2-509-01
	Wall	FA2-110-01, FA2-505-01, FA2-509-01, FA2-512-01, FA2-602-01
FA3-101-01	Ceiling	<u>FA3-103-02</u> , FA3-103-03, <u>FA3-104-02</u> , FA3-104-03
	Wall	FA2-101-01 , FA2-102-01, FA2-111-01, FA3-102-01, <u>FA3-103-02</u> , <u>FA3-104-02</u> , FA3-106-01, <u>FA3-128-01</u> , FA7-101-01
FA3-102-01	Ceiling	FA3-103-03, FA3-104-03
	Wall	<u>FA2-101-01</u> , <u>FA2-111-01</u> , FA3-101-01, FA3-103-01 , FA3-103-02 , FA3-104-01 , FA3-106-01, <u>FA3-128-01</u> FA7-102-01
FA3-103-01	Ceiling	FA3-103-03 4 , FA3-104-03 , FA3-118-01
	Wall	FA3-102-01 , FA3-103-02 , FA3-104-01, <u>FA3-105-03</u> , FA3-106-01, FA3-118-01, <u>FA3-127-01</u> , <u>FA3-128-01</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 25 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA3-103-02	Ceiling	FA3-104 3 -03
	Floor	FA3-104 1 -01
	Wall	FA3-102 1 -01, FA3-103-01 , FA3-104-02, FA3-119-01 , FA7-401-01 , FA7-402-01 FA3-128-01
FA3-103-03	Ceiling	Roof
	Floor	FA3-101-01, FA3-102-01, FA3-103-01 2 , FA3-106-01 FA3-104-02, FA3-14 2 8-01
	Wall	FA2-101-01 , FA2-201-01 , FA2-320-01 , FA3-104-03, FA3-105-02 FA3-130-01
<u>FA3-103-04</u>	<u>Ceiling</u>	<u>FA3-104-03, Roof</u>
	<u>Floor</u>	<u>FA3-103-01, FA3-104-01, FA3-118-01, FA3-127-01</u>
	<u>Wall</u>	<u>FA3-104-04, FA3-105-02, FA3-130-01</u>
FA3-104-01	Ceiling	FA3-103-0 2 4, FA3-104-0 2 4, FA3-119 8 -01, <u>FA3-129-01</u>
	Wall	FA3-102-01 , FA3-103-01, FA3-106-01, <u>FA3-118-01, FA3-128-01, FA3-129-01</u>
FA3-104-02	Ceiling	<u>FA3-103-03</u> , FA3-104-03
	Floor	FA3-104 1 -01
	Wall	<u>FA3-101-01</u> , FA3-103-02, FA3-105-01 , FA3-119-01 , FA7-401-01
FA3-104-03	Ceiling	Roof
	Floor	FA3-101-01, FA3-102-01, FA3-103-01 , FA3-103-02 , FA3-104-02, FA3-118-01 , FA3-119-01
	Wall	<u>FA2-101-01</u> , FA2-102-01, FA2-201-01, FA2-202-01, FA2-320-01, FA3-103-03, FA3-105-02 , FA6-101-04 , FA6-101-15 FA3-130-01
<u>FA3-104-04</u>	<u>Ceiling</u>	<u>FA3-104-03, Roof</u>
	<u>Floor</u>	<u>FA3-104-01, FA3-129-01</u>
	<u>Wall</u>	<u>FA3-103-04, FA3-104-03, FA3-105-02, FA3-130-01</u>
FA3-105-01	Ceiling	FA3-105-02
	Floor	FA3-10 1 6-01, FA3-115-01
	Wall	FA3-104-02 , FA3-105-03, FA3-106 2 5-01, FA3-147 2 9-01, FA3-119-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 26 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA3-105-02	Ceiling	Roof
	Floor	FA3-105-01, FA3-105-03, FA3-106-01, FA3-116-01 , FA3-117-01, <u>FA3-119-01</u> , FA3-125-01, <u>FA3-129-01</u>
	Wall	FA3-103-03, FA3-104-03, FA3-106-01, FA3-125-01 <u>FA2-151-03, FA2-151-04, FA2-154-05, FA2-316-01, FA3-103-04, FA3-104-04, FA3-130-01</u>
FA3-105-03	Ceiling	FA3-105-02
	Floor	FA3-115-01, <u>FA3-133-01</u>
	Wall	<u>FA3-103-01</u> , FA3-105-01, FA3-117-01, FA7-403-01 <u>FA3-125-01, FA3-127-01, FA3-128-01</u>
FA3-106-01	Ceiling	FA3-103-03, FA3-105-01, FA3-105-02, FA3-112-01 <u>FA3-127-01, FA3-128-01, FA3-129-01, FA3-130-01</u>
	Floor	FA3-116-01
	Wall	FA2-111-01, <u>FA2-114-03</u> , FA3-101-01, FA3-102-01, FA3-103-01, FA3-104-01, FA3-105-01, FA3-105-02, FA3-115-01, FA3-116-01, FA3-117-01, FA3-118-01, FA3-119-01, FA3-125-01 <u>FA3-127-01, FA3-128-01, FA3-129-01, FA3-132-01, FA3-133-01</u>
FA3-108-01	Ceiling	FA3-109-03, FA3-111-03
	Wall	FA3-109-01, FA3-109-02, FA3-110-01, FA3-111-01, FA3-112-01, FA7-103-01, <u>FA7-104-01</u>
FA3-109-01	Ceiling	FA3-109-03, FA3-111-03, FA3-122-01
	Wall	FA3-108-01, FA3-109-02, FA3-111-01, FA3-112-01, FA3-122-01
FA3-109-02	Ceiling	FA3-111-03
	Floor	FA3-111-01
	Wall	FA3-108-01, FA3-109-01, FA3-111-02, FA3-124-01, FA7-404-01
FA3-109-03	Ceiling	FA3-114-01, Roof
	Floor	FA3-108-01, FA3-109-01, FA3-110-01, <u>FA3-111-03</u> , FA3-112-01, <u>FA3-113-02</u> , FA3-122-01
	Wall	FA2-110-01, FA2-206-01, FA3-111-03, FA3-113-02, FA3-114-01, FA4-101-04, <u>FA4-101-09</u> , FA4-101-10
FA3-110-01	Ceiling	FA3-109-03, FA3-111-03
	Wall	FA2-108-01, FA2-110-01, FA2-112-01, FA3-108-01, FA3-112-01, FA7-104-01
FA3-111-01	Ceiling	FA3-109-02, FA3-111-02, FA3-124-01
	Wall	FA3-108-01, FA3-109-01, FA3-112-01, <u>FA7-104-01</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 27 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA3-111-02	Ceiling	FA3-111-03
	Floor	FA3-111-01, <u>FA3-112-01</u>
	Wall	FA3-109-02, FA3-113-01 , FA3-124-01, FA7-405-01 , <u>FA3-131-01</u> , <u>FA7-104-01</u>
FA3-111-03	Ceiling	<u>FA3-109-03</u> , FA3-114-01, Roof
	Floor	FA3-108-01, FA3-109-01, FA3-109-02, FA3-110-01, FA3-111-02, FA3-122-01, FA3-124-01
	Wall	FA2-108-01, FA2-205-01, FA2-206-01, FA3-109-03, FA3-113-02, FA3-114-01, FA6-101-04, FA6-101-15
FA3-112-01	Ceiling	FA3-109-03, FA3-113-01 , <u>FA3-111-02</u> , FA3-113-02, FA3-123-01, <u>FA3-124-01</u> , <u>FA3-131-01</u>
	Floor	FA3-120-01, <u>FA2-134-01</u>
	Wall	FA2-112-01, FA3-108-01, FA3-109-01, FA3-110-01, FA3-111-01, FA3-113-01 , FA3-113-02, FA3-120-01 , FA3-121-01 , FA3-122-01, FA3-123-01 , FA3-124-01 , FA3-126-01, <u>FA3-131-01</u> , <u>FA3-134-01</u> , <u>FA3-135-01</u> , FA4-101-01, <u>FA4-101-22</u> , <u>FA7-104-01</u>
FA3-113-01	Ceiling	FA3-113-02
	Floor	FA3-112-01 , FA3-121-01, <u>FA3-135-01</u>
	Wall	FA3-111-02 , FA3-112-01 , FA3-113-03, FA3-123-01, FA3-124-01 , <u>FA3-131-01</u> , <u>FA7-104-01</u>
FA3-113-02	Ceiling	<u>FA3-109-03</u> , Roof
	Floor	FA3-112-01, FA3-113-01, FA3-113-03, FA3-120-01, FA3-123-01, FA3-126-01, <u>FA3-131-01</u>
	Wall	FA3-109-03, FA3-111-03, FA3-112-01, FA3-126-01, FA4-101-04, FA4-101-09, FA4-101-10, FA4-101-22
FA3-113-03	Ceiling	FA3-113-02
	Floor	FA3-121-01
	Wall	FA3-113-01, FA3-123-01, FA7-406-01
FA3-114-01	Ceiling	Roof
	Floor	FA3-109-03, FA3-111-03
	Wall	FA2-108-01, FA2-110-01, FA2-321-01, FA3-109-03, FA3-111-03, FA4-101-10, FA6-101-04 , FA6-101-15
FA3-115-01	Ceiling	FA3-105-01 , FA3-105-03 , FA3-117-01, <u>FA3-129-01</u>
	Wall	FA3-106-01 , <u>FA2-121-01</u> , FA3-116-01, <u>FA3-132-01</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 28 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA3-116-01	Ceiling	FA3-105-02 1 , FA3-106-01 FA3-105-03, FA3-125-01
	Wall	FA3-106-01 , FA3-115-01, <u>FA3-133-01</u>
FA3-117-01	Ceiling	FA3-105-02
	Floor	FA3-106-01, FA3-115-01, <u>FA3-132-01</u>
	Wall	FA3-105-01, FA3-105-03, FA3-106-01 FA2-114-03, FA2-121-01, FA3-118-01, FA3-119-01, FA3-125-01, <u>FA2-154-02</u>
FA3-118-01	Ceiling	FA3-103-03 4 , FA3-104-03
	Floor	FA3-103-01, <u>FA3-104-01</u>
	Wall	FA3-103-01, FA3-106-01, <u>FA3-105-03, FA3-117-01, FA3-127-01, FA3-129-01</u>
FA3-119-01	Ceiling	FA3-104-03 FA3-105-02
	Floor	FA3-104-01 FA3-132-01
	Wall	FA3-103-02, FA3-104-02, FA3-105-01, FA3-106-01 FA2-114-03, <u>FA2-154-02, FA3-117-01, FA3-118-01</u> FA3-129-01
FA3-120-01	Ceiling	FA3-112-01, FA3-113-02, FA3-126-01
	Wall	FA3-112-01 , FA3-121-01, FA4-101-01 FA3-134-01, FA4-101-22
FA3-121-01	Ceiling	FA3-113-01, FA3-113-03, FA3-123-01
	Wall	FA3-112-01 , FA3-120-01, <u>FA3-135-01, FA7-104-01</u>
FA3-122-01	Ceiling	FA3-109-03, FA3-111-03
	Floor	FA3-109-01, <u>FA3-112-01</u>
	Wall	FA3-109-01, FA3-112-01, FA3-123-01 , FA3-124-01, <u>FA3-131-01</u>
FA3-123-01	Ceiling	FA3-113-02
	Floor	FA3-112-01 , FA3-121-01, <u>FA3-135-01</u>
	Wall	FA3-112-01, FA3-113-01, FA3-113-03, FA3-122-01, FA3-124-01, FA3-126-01, FA3-131-01
FA3-124-01	Ceiling	FA3-111-03
	Floor	FA3-111-01, <u>FA3-112-01</u>
	Wall	FA3-109-02, FA3-111-02, FA3-112-01, FA3-113-01 , FA3-122-01, FA3-123-01
FA3-125-01	Ceiling	FA3-105-02
	Floor	FA3-116-01, <u>FA3-133-01</u>
	Wall	FA3-105-02 1 , FA3-106-01 FA3-105-03, FA3-127-01, <u>FA3-129-01</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 29 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA3-126-01	Ceiling	FA3-113-02
	Floor	FA3-120-01, <u>FA3-134-01</u>
	Wall	FA3-112-01, FA3-113-02, FA3-123-01
<u>FA3-127-01</u>	<u>Ceiling</u>	<u>FA3-103-04</u>
	<u>Floor</u>	<u>FA3-106-01</u>
	<u>Wall</u>	<u>FA3-103-01, FA3-105-03, FA3-106-01, FA3-118-01, FA3-125-01, FA3-129-01, FA3-133-01</u>
<u>FA3-128-01</u>	<u>Ceiling</u>	<u>FA3-103-03, FA3-130-01</u>
	<u>Floor</u>	<u>FA3-106-01</u>
	<u>Wall</u>	<u>FA3-101-01, FA3-102-01, FA3-103-01, FA3-103-02, FA3-104-01, FA3-105-03, FA3-106-01, FA7-101-01, FA7-102-01</u>
<u>FA3-129-01</u>	<u>Ceiling</u>	<u>FA3-104-04, FA3-105-02, FA3-130-01</u>
	<u>Floor</u>	<u>FA3-104-01, FA3-106-01, FA3-115-01, FA3-132-01</u>
	<u>Wall</u>	<u>FA2-114-03, FA2-154-02, FA3-104-01, FA3-105-01, FA3-106-01, FA3-117-01, FA3-118-01, FA3-119-01, FA3-125-01, FA3-127-01</u>
<u>FA3-130-01</u>	<u>Ceiling</u>	<u>FA3-104-03, Roof</u>
	<u>Floor</u>	<u>FA3-106-01, FA3-128-01, FA3-129-01</u>
	<u>Wall</u>	<u>FA2-151-04, FA2-201-01, FA2-316-01, FA2-320-01, FA3-103-03, FA3-104-03, FA3-104-04, FA3-105-02</u>
<u>FA3-131-01</u>	<u>Ceiling</u>	<u>FA3-113-02</u>
	<u>Floor</u>	<u>FA3-135-01</u>
	<u>Wall</u>	<u>FA3-112-01, FA3-122-01, FA3-124-01, FA3-111-02, FA3-113-01, FA3-123-01, FA7-104-01</u>
<u>FA3-132-01</u>	<u>Ceiling</u>	<u>FA3-117-01, FA3-119-01, FA3-129-01</u>
	<u>Wall</u>	<u>FA2-114-03, FA3-106-01, FA3-115-01, FA3-133-01</u>
<u>FA3-133-01</u>	<u>Ceiling</u>	<u>FA3-105-03, FA3-125-01</u>
	<u>Wall</u>	<u>FA3-106-01, FA3-116-01, FA3-127-01, FA3-132-01</u>
<u>FA3-134-01</u>	<u>Ceiling</u>	<u>FA3-112-01, FA3-126-01</u>
	<u>Wall</u>	<u>FA3-112-01, FA3-120-01, FA3-135-01, FA4-101-01, FA4-101-22</u>
<u>FA3-135-01</u>	<u>Ceiling</u>	<u>FA3-113-01, FA3-123-01, FA3-131-01</u>
	<u>Wall</u>	<u>FA3-112-01, FA3-121-01, FA3-134-01, FA7-104-01</u>

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 30 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA4-101-01	Ceiling	FA4-101-04, FA4-101-24
	Wall	FA2-115-03, FA2-116-03, FA2-124-01, FA2-153-02, FA3-112-01, FA3-120-01 FA3-134-01, FA4-101-02, FA4-101-03, FA4-101-04, FA4-101-14, FA4-101-16, FA4-101-18, FA4-101-20, FA4-101-21, FA4-101-22, FA5-101-01, FA4-101-25
FA4-101-02	Ceiling	Roof
	Wall	FA2-116-03, FA2-127-07, FA2-128-02, FA2-153-02, FA2-209-05, FA2-210-21 FA2-213-01, FA2-213-07, FA2-418-01, FA4-101-01, FA4-101-04, FA4-101-13, FA4-101-15, FA4-101-18, FA4-101-20, FA4-101-24
FA4-101-03	Ceiling	FA4-101-17
	Wall	FA2-118-01, FA2-119-01, FA2-128-01, FA2-128-02, FA2-130-01, FA4-101-01, FA4-101-04
FA4-101-04	Ceiling	FA4-101-06, FA4-101-07, FA4-101-08, FA4-101-10, FA4-101-11, FA4-101-12, FA4-101-13, FA4-101-14, FA4-101-15, FA4-101-16, FA4-101-20
	Floor	FA4-101-01, FA4-101-25
	Wall	FA2-127-07, FA2-128-02, FA2-152-03, FA2-152-04, FA3-109-03, FA3-113-02, FA4-101-01, FA4-101-02, FA4-101-03, FA4-101-15, FA4-101-16, FA4-101-17, FA4-101-22, FA5-101-01
FA4-101-06	Ceiling	FA4-101-18
	Floor	FA4-101-04
	Wall	FA4-101-07, FA4-101-08, FA4-101-10, FA4-101-13
FA4-101-07	Ceiling	FA4-101-18
	Floor	FA4-101-04
	Wall	FA4-101-06, FA4-101-08, FA4-101-10
FA4-101-08	Ceiling	FA4-101-18
	Floor	FA4-101-04
	Wall	FA4-101-06, FA4-101-07, FA4-101-10
FA4-101-09	Ceiling	FA4-101-18, FA4-101-19
	Floor	FA4-101-22
	Wall	FA3-109-03, FA3-113-02, FA4-101-10, FA5-101-01

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 31 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA4-101-10	Ceiling	FA4-101-18, FA4-101-19, Roof
	Floor	FA4-101-04, FA4-101-22
	Wall	FA2-153-05, FA2-209-05 FA2-213-01, FA2-317-01, FA2-321-01, FA3-109-03, FA3-113-02, FA3-114-01, FA4-101-06, FA4-101-07, FA4-101-08, FA4-101-09, FA4-101-11, FA4-101-12, FA4-101-13, FA4-101-14, FA4-101-16, FA4-101-18, FA4-101-23, FA5-101-01, FA5-101-02
FA4-101-11	Ceiling	FA4-101-18
	Floor	FA4-101-04, FA4-101-22
	Wall	FA4-101-10, FA4-101-12, FA5-101-01, FA5-101-02
FA4-101-12	Ceiling	FA4-101-18
	Floor	FA4-101-04, FA4-101-22
	Wall	FA4-101-10, FA4-101-11, FA4-101-14, FA5-101-01, FA5-101-02
FA4-101-13	Ceiling	FA4-101-18
	Floor	FA4-101-04
	Wall	FA2-153-05, FA2-209-05 FA2-213-01, FA4-101-02, FA4-101-06, FA4-101-10, FA4-101-15
FA4-101-14	Ceiling	FA4-101-18
	Floor	FA4-101-04
	Wall	FA4-101-01, FA4-101-10, FA4-101-12, FA4-101-16, FA5-101-01
FA4-101-15	Ceiling	FA4-101-20
	Floor	FA4-101-04
	Wall	FA2-209-05 FA2-213-01, FA4-101-02, FA4-101-04, FA4-101-13, FA4-101-16, FA4-101-17
FA4-101-16	Ceiling	FA4-101-21
	Floor	FA4-101-04
	Wall	FA4-101-01, FA4-101-04, FA4-101-10, FA4-101-14, FA4-101-15
FA4-101-17	Ceiling	FA4-101-20
	Floor	FA4-101-03
	Wall	FA2-118-01, FA2-119-01, FA2-209-05 FA2-213-01, FA4-101-04, FA4-101-15

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 32 of 36)

Fire Zone	Interface	Adjacent Fire Zones	
FA4-101-18	Ceiling	FA4-101-23, FA4-101-24, Roof	
	Floor	FA4-101-06, FA4-101-07, FA4-101-08, FA4-101-09, FA4-101-10, FA4-101-11, FA4-101-12, FA4-101-13, FA4-101-14, <u>FA4-101-19</u>	MIC-03-09-00015
	Wall	FA2-418-01, <u>FA2-419-01</u> FA2-422-01, FA2-423-01 FA4-101-01, FA4-101-02, FA4-101-10, FA4-101-19, FA4-101-20, FA4-101-21	
FA4-101-19	Ceiling	Roof <u>FA4-101-18</u>	MIC-03-09-00015
	Floor	FA4-101-09, FA4-101-10	
	Wall	FA4-101-18	
FA4-101-20	Ceiling	FA4-101-24, Roof	
	Floor	<u>FA4-101-01</u> , FA4-101-04, FA4-101-15, FA4-101-17, <u>FA4-101-21</u>	MIC-03-09-00015
	Wall	FA2-118-01, FA2-119-01, FA2-418-01, <u>FA4-101-01</u> , FA4-101-02, FA4-101-18, FA4-101-21	
FA4-101-21	Ceiling	Roof <u>FA4-101-20</u>	MIC-03-09-00015
	Floor	FA4-101-01 , FA4-101-16	
	Wall	<u>FA4-101-01</u> , FA4-101-18, FA4-101-20	
FA4-101-22	Ceiling	FA4-101-09, FA4-101-10, FA4-101-11, FA4-101-12	
	Wall	<u>FA3-112-01</u> , FA3-113-02, FA3-120-01, <u>FA3-134-01</u> , FA4-101-01, FA4-101-04, FA5-101-01	MIC-03-09-00015
FA4-101-23	Ceiling	Roof	
	Floor	FA4-101-18	
	Wall	FA2-210-21 <u>FA2-214-07</u> , FA2-509-01, FA2-510-02, FA4-101-10, <u>FA4-101-24</u>	MIC-03-09-00015
FA4-101-24	Ceiling	Roof	
	Floor	FA4-101-18, FA4-101-20	
	Wall	FA2-118-01, FA2-119-01, FA2-210-21 <u>FA2-214-07</u> , FA4-101-02, <u>FA4-101-23</u>	MIC-03-09-00015
<u>FA4-101-25</u>	<u>Ceiling</u>	<u>FA4-101-04</u>	DCD_11.03-19
	<u>Wall</u>	<u>FA4-101-01</u>	
FA5-101-01	Ceiling	FA5-101-02, Roof	
	Wall	FA4-101-01, FA4-101-04, <u>FA4-101-09</u> , FA4-101-10, FA4-101-11, FA4-101-12, FA4-101-14, FA4-101-22, FA5-101-02	MIC-03-09-00015

Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 33 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA5-101-02	Ceiling	Roof
	Floor	FA5-101-01
	Wall	FA4-101-10, FA4-101-11, FA4-101-12, FA5-101-01
FA6-101-01	Ceiling	FA6-101-02, FA6-101-07, FA6-101-08, FA6-101-12
FA6-101-02	Ceiling	FA6-101-13, FA6-101-16
	Floor	FA6-101-01
	Wall	FA6-101-03, FA6-101-04, FA6-101-05, FA6-101-06, FA6-101-07, FA6-101-08, FA6-101-11, FA6-101-12, FA6-101-15
FA6-101-03	Ceiling	FA6-101-14
	Wall	FA6-101-02, FA6-101-04, <u>FA6-101-07</u> , FA6-101-09, <u>FA6-101-10</u> , FA6-101-15
FA6-101-04	Ceiling	FA6-101-15
	Wall	FA2-102-01, FA2-108-01, FA2-201-01, FA2-202-01, FA2-203-01, FA2-204-01, FA2-205-01 , FA2-206-01, FA3-104-03 , FA3-111-03, FA3-114-01 , FA6-101-02, FA6-101-03, FA6-101-07, FA6-101-08
FA6-101-05	Ceiling	Roof
	Wall	FA6-101-02, FA6-101-13, FA6-101-17, FA6-101-19, FA6-101-22
FA6-101-06	Ceiling	Roof
	Wall	FA6-101-02, FA6-101-13, FA6-101-17, FA6-101-19, FA6-101-23
FA6-101-07	Ceiling	Roof
	Floor	FA6-101-01
	Wall	FA6-101-02, <u>FA6-101-03</u> , FA6-101-04, FA6-101-08, FA6-101-13, <u>FA6-101-14</u> , FA6-101-15, FA6-101-17, FA6-101-19
FA6-101-08	Ceiling	Roof
	Floor	FA6-101-01
	Wall	FA6-101-02, FA6-101-04 , FA6-101-07, FA6-101-13, FA6-101-15 , FA6-101-17, FA6-101-19
FA6-101-09	Ceiling	Roof
	Wall	FA6-101-03, FA6-101-14, FA6-101-18
FA6-101-11	Ceiling	Roof
	Wall	FA6-101-02, FA6-101-13, FA6-101-17, FA6-101-19, FA6-101-20

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 34 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA6-101-12	Ceiling	FA6-101-13
	Floor	FA6-101-01
	Wall	FA6-101-02
FA6-101-13	Ceiling	FA6-101-17
	Floor	FA6-101-02, FA6-101-12
	Wall	FA6-101-05, FA6-101-06, FA6-101-07, FA6-101-08, FA6-101-11, FA6-101-14, FA6-101-15, FA6-101-16
FA6-101-14	Ceiling	FA6-101-18, Roof
	Floor	FA6-101-03
	Wall	<u>FA6-101-07</u> , FA6-101-09, <u>FA6-101-10</u> , FA6-101-13, FA6-101-15
FA6-101-15	Ceiling	Roof
	Floor	FA6-101-04
	Wall	FA2 102 01, FA2 108 01, FA2 202 01, FA2 205 01, FA2 302 01, FA2 304 01, FA2 304 02, FA2 307 01, FA2 308 01, FA2 308 02, FA2 308 03, FA2 309 01, FA2 309 02, FA2 312 01, FA2 313 01, FA2 402 01, FA2 404 01, FA2 405 01, FA2 406 01, FA2 412 01, FA2 413 01, FA2 420 01, FA2 423 01, FA3 104 03, FA3 111 03, FA3 114 01 , FA6-101-02, FA6-101-03, FA6-101-07, FA6-101-08, FA6-101-13, FA6-101-14, FA6-101-16
FA6-101-16	Ceiling	FA6-101-17
	Floor	FA6-101-02
	Wall	FA6-101-13, FA6-101-15
FA6-101-17	Ceiling	FA6-101-19, FA6-101-20, FA6-101-21, Roof
	Floor	FA6-101-13, FA6-101-16
	Wall	FA6-101-05, FA6-101-06, FA6-101-07, FA6-101-08, FA6-101-11
FA6-101-18	Ceiling	Roof
	Floor	FA6-101-14
	Wall	FA6-101-09
FA6-101-19	Ceiling	FA6-101-22, FA6-101-23, Roof
	Floor	FA6-101-17, FA6-101-20, FA6-101-21
	Wall	FA6-101-05, FA6-101-06, FA6-101-07, FA6-101-08, FA6-101-11, FA6-101-20, FA6-101-21

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 35 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA6-101-20	Ceiling	FA6-101-19
	Floor	FA6-101-17
	Wall	FA6-101-11 , FA6-101-19
FA6-101-21	Ceiling	FA6-101-19
	Floor	FA6-101-17
	Wall	FA6-101-19
FA6-101-22	Ceiling	Roof
	Floor	FA6-101-19
	Wall	FA6-101-05
FA6-101-23	Ceiling	Roof
	Floor	FA6-101-19
	Wall	FA6-101-06
FA7-101-01	Ceiling	FA7-102-01, FA7-103-01 , FA7-104-01
	Wall	FA2-102-01, FA2-104-01, FA3-101-01, <u>FA3-128-01</u> , FA7-102-01, FA7-103-01 , FA7-104-01
FA7-102-01	Ceiling	FA7-103-01 , FA7-104-01
	Floor	FA7-101-01
	Wall	FA2-105-01, <u>FA3-128-01</u> , FA3-102-01 , FA7-101-01, FA7-103-01, FA7-104-01 , FA7-401-01 , FA7-402-01 , FA7-403-01 , FA7-404-01 , FA7-405-01 , FA7-406-01
FA7-103-01	Ceiling	FA7-104-01 , FA7-401-01 , FA7-402-01 , FA7-403-01 , FA7-404-01 , FA7-405-01 , FA7-406-01
	Floor	FA7-101-01 , FA7-102-01 , FA7-104-01
	Wall	FA2-106-01, FA3-108-01, FA7-101-01 , FA7-102-01, FA7-104-01, FA7-401-01 , FA7-402-01 , FA7-403-01 , FA7-404-01 , FA7-405-01 , FA7-406-01
FA7-104-01	Ceiling	FA7-103-01, FA7-401-01 , FA7-402-01 , FA7-403-01 , FA7-404-01 , FA7-405-01 , FA7-406-01
	Floor	FA7-101-01 , FA7-102-01 , FA7-103-01
	Wall	FA2-107-01, <u>FA2-108-01</u> , <u>FA3-108-01</u> , FA3-110-01, <u>FA3-111-01</u> , <u>FA3-111-02</u> , <u>FA3-112-01</u> , <u>FA3-113-01</u> , <u>FA3-121-01</u> , <u>FA3-131-01</u> , <u>FA3-135-01</u> , FA7-101-01 , FA7-102-01 , FA7-103-01

MIC-03-09-00015

MIC-03-09-00015

MIC-03-09-00015

LEGEND

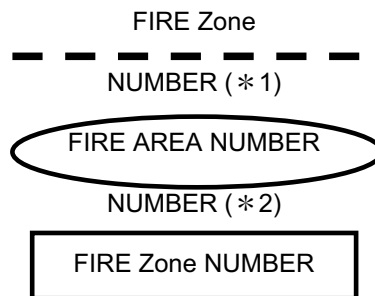
FIRE AREA BOUNDARY
 [3 HOUR FIRE BARRIER WITH 3 HOUR FIRE DOORS]
 [Except Exterior Walls]



FIRE AREA BOUNDARY
 [3 HOUR FIRE AND 5 PSID PRESSURE
 BARRIER WITH 3 HOUR FIRE AND 5 PSID
 PRESSURE DOORS]



FIRE AREA BOUNDARY FLOOR
 [3 HOUR FIRE AND 5 PSID PRESSURE
 BARRIER WITH 3 HOUR FIRE AND 5 PSID
 PRESSURE HATCHES, DAMPERS AND
 PENETRATION SEALS]



(*1)

FIRE AREA NUMBER is shown as follows.

- FA ○—■××
- : Building Number
 - 1 : C/V
 - 2 : R/B
 - 3 : PS/B
 - 4 : A/B
 - 5 : AC/B
 - 6 : T/B
 - 7 : O/B

(*2)

FIRE Zone NUMBER is shown as follows.
 FIRE AREA NUMBER—××

DCD_19-535
 S01
 MIC-03-09-
 00015

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-1 Fire Zones and Fire Areas R/B EL -26'-4" (B1F)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-2 Fire Zones and Fire Areas R/B EL -8'-7" (B1MF)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-3 Fire Zones and Fire Areas R/B EL 3'-7" (1F)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-4 Fire Zones and Fire Areas R/B EL 13'-6" (1MF)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-5 Fire Zones and Fire Areas R/B EL 25'-3" (2F)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-6 Fire Zones and Fire Areas R/B EL 35'-2" (2MF)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-7 Fire Zones and Fire Areas R/B EL 50'-2" (3F)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-8 Fire Zones and Fire Areas R/B EL 76'-5" (4F)

DCD_19-535
S01
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-9 Fire Zones and Fire Areas R/B EL 101'-0" (Roof)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-10 Fire Zones and Fire Areas R/B EL 115'-6" (Roof)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-11 Fire Zones and Fire Areas PS/B EL -26'-4", EL -14'-2" (B1F, B1MF)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-12 Fire Zones and Fire Areas PS/B EL 3'-7", EL 24'-2", EL 39'-6" (1F, 1MF, Roof)

DCD_11.03-19
MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-13 Fire Zones and Fire Areas A/B EL -26'-4" (B1F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-14 Fire Zones and Fire Areas A/B EL 3'-7" (1F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-15 Fire Zones and Fire Areas A/B EL 25'-3" (2F)

DCD_11.03-
19
MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-16 Fire Zones and Fire Areas A/B EL 50'-2" (3F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-17 Fire Zones and Fire Areas A/B EL 76'-5" (Roof)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-18 Fire Zones and Fire Areas AC/B EL -26'-4", EL -8'-0", EL 3'-7" (B1F, B1MF, 1F)

MIC-03-09-
00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-19 Fire Zones and Fire Areas AC/B EL 17'-9", EL 30'-2", EL 48'-2" (1MF, 2F, Roof)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-20 Fire Zones and Fire Areas T/B EL -18'-0" (B1F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-21 Fire Zones and Fire Areas T/B EL 3'-7" (1F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-22 Fire Zones and Fire Areas T/B EL 34'-0" (2F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-23 Fire Zones and Fire Areas T/B EL 61'-0" (3F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-24 Fire Zones and Fire Areas T/B EL 88'-10" (4F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-25 Fire Zones and Fire Areas T/B EL 108'-4" and 113'-6" (5F)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-26 Fire Zones and Fire Areas T/B EL 165'-4" (Roof)

MIC-03-09-00015

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-27 Fire Zones and Fire Areas ESW Piping Tunnel and Power Source Fuel Storage Vault