protective gratings barriers. Refer to Section 3.5.3.1.1. These protective barriers are part | DCD 14.03. 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 minimumhorizontal 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 roomventilation 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.

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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 reinferced 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 safetyrelated 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 safeshutdown 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 safeshutdown 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 3.12.4E+04 Btu/ft² with the primary fire hazard being electrical cables MIC-03-09and 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

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.

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- 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

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.

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- 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 safeshutdown 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

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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MIC-03-09-00015 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 safeshutdown 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.

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

Safe Shutdown Evaluation

A fire in this area has the potential to damage the following typical systems of safeshutdown 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

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

MIC-03-09-00015 expected to exceed <u>9.36.2</u>E+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. <u>56</u> E+04	MIC-03-09- 00015
FA2-128-02	FA2-128 - 02 Corridor	3.0E+04	00013
FA2-128-03	B – Spent Fuel Pit Pump Room	3.0E+04	
FA2-128-04	B – Spent Fuel Pit Hx Room	2.8E+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. <u>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.</u>

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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	MIC-03-09- 00015
FA2-152-05	R/B-2F C-Piping Penetration Area (FA2-152-05)	3.1E+04	00015
FA2-152-06	R/B-2F C-Piping Penetration Area (FA2-152-06)	4.8E+04	

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.

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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 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. 6 7E+04	MIC-03-09- 00015
FA2-153-04	D Safeguard Component Area AHU Room	3.0E+04	00013
FA2-153-05	R/B-2F D-Piping Penetration Area(FA2-153-05)	3.2E+04	

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. <mark>0</mark> 4E+04	MIC-03-09- 00015
FA2-154-05	R/B-2F A-Penetration Area (FA2-154-05)	3.0E+04	00015
FA2-154-06	C/V Personnel Airlock Zone	2.4E+04	

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 safeshutdown 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

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 safeshutdown 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 safeshutdown 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 safeshutdown 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 nonradiologically 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 A-Class 1E Electrical Room FA2-202

Figures 9A-3 and 9A-6 show the location of FA2-202 in the east side of the nonradiologically 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 swith 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 3hour 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 MIC-03-09electrical insulation associated with the load center components.

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 safeshutdown 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 swith 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 <u>87</u>.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).

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- 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 safeshutdown 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 safeshutdown 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.3.38 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 swith 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 §7.9E+04 Btu/ft² with the primary fire hazard being the plastic and electrical insulation associated with the load center components.

MIC-03-09-00015

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

Tier 2 9A-85 Revision 3

- 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 safeshutdown 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 nonradiologically 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 **D-Class 1E Electrical Room** FA2-205

Figures 9A-3 and 9A-6 show the location of FA2-205 in the west side of the nonradiologically 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 swith 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 3hour 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 MIC-03-09electrical insulation associated with the load center components.

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.

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- 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 safeshutdown 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

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 safeshutdown function.

C-Main Steam Relief Valve (train-C)

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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	MIC-03-09-
FA2-209-06	FA2-209-06 3F Eastside Corridor	2.9 3.0E+04	00015
FA2-209-07	FA2-209-07 Piping Room	3.8E+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.

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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

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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 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-119. The following listing provides the individual designation, number of | MIC-03-09the 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	MIC-03-09- 00015
FA2 210 12	FA2 210 12 Piping Room	3.7E+04	00015
FA2-210-13 FA2-210-14	Spent Fuel Handling Zone FA2 210 14 Piping Room	3.4 <u>2</u> E+04 2.7E+04	
FA2-210-15	FA2-210-15 4F Eastside Corridor	2.8E+04	
FA2 210 16	C/V Radiation Gas Monitor Room-	2.8E+03	MIC-03-09- 00015
FA2 210 17	Pass Sampling Rack Room-	8.0E+03	00015
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	MIC-03-09-
FA2-210-22	Free Space	1.9E+02	00015

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 3hour 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 E+04 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

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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, FA-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 2.73.0E+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

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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

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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 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 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.

Fire Zone	<u>Designation</u>	Fire Loading (Btu/ft ²)
FA2-214-01	Volume Control Tank Room	4.1E+04
FA2-214-02	FA2-214-02 Piping Room	3.7E+04
FA2-214-03	FA2-214-03 Piping Room	2.7E+04
FA2-214-04	Pass Sampling Rack Room	1.0E+04
FA2-214-05	C/V Radiation Gas Monitor Room	2.2E+03
FA2-214-06	Plant Vent Radiation Gas Monitor Room	3.8E+03
FA2-214-07	FA2-214-07 4F Westside Corridor	2.7E+04

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.

MIC-03-09-00015

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 IMIC-03-09fire 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.

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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 nonradiologically 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 3.97.7E+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 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 safeshutdown function.

- B-Class 1E Power system
- B Safety I&C system

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- 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 safeshutdown 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.3.51 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.

DCD_19-535 S01

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

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- 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

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

FA2-307-01 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.

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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 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 Btu/ft².

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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 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.

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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 safeshutdown 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 4.33.4E+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, FA2-312-02, is heavily loaded with electrical cables resulting in a maximum anticipated fire loading to the compartment of 4.43.5E+05 Btu/ft².

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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,

DCD_19-535 S01 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 is 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 safeshutdown 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 safeshutdown 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 safeshutdown 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

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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.

MIC-03-09-

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.

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The fire area primarily contains non-safety-related train cables. FA2-320-01 contains maximum expected fire load of 2.76E+04 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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DCD_19-535 S01

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.

DCD_19-535 S01

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

MIC-03-09-

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.

DCD_19-535 S01

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

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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.

DCD_19-535 S01

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 MIC-03-09barriers, two safety trains of equipment in other fire areas can achieve and maintain safeshutdown 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 safeshutdown 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 safeshutdown 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 safeshutdown function.

A-Main Steam Isolation Valve

B-Main Steam Isolation Valve

Since this area is separated from A, C and D Main Steam Isolation Valve by 3-hour fire MIC-03-09barriers, 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 nonradiologically 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.

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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 safeshutdown function.

- **D-Safety Control System**
- <u>B</u>D-EFWS (T/D) (train-D)

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Since this area is separated from train A₇ and Band 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 safeshutdown.

A fire in this fire area has the potential to damage the following system and safeshutdown 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 safeshutdown 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 safeshutdown function.

C-Main Steam Isolation Valve

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D-Main Steam Isolation Valve

Since this area is separated from A₇ and B and C Main Steam Isolation Valve by 3-hour MIC-03-09fire barriers, two valves of equipment in other areas can achieve and maintain safeshutdown 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.3.84 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 21.7E+04 Btu/ft².

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

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 safeshutdown 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

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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

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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 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- $\frac{DC}{C}$.

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.

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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 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 safeshutdown function.

- D CS/RHRSC-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 SystemC-Class 1E Electrical Room HVAC System

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Since this fire area is separated from the Train A, B and ED areas by 3-hour fire rated MIC-03-09barriers, two safety trains of equipment in other fire areas can achieve and maintain safeshutdown 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 safeshutdown 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

Tier 2 9A-183 Revision 3 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 safeshutdown 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 safeshutdown 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 safeshutdown 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 safeshutdown 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.

DCD_19-535 S01

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

MIC-03-09-00015

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 IDCD 19-535 Figures 9A-1 through 9A-12.

S01

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

MIC-03-09-00015

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 safetyrelated 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 nonradiologically 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 2.67 E+04 Btu/ft2.. | MIC-03-09-

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.

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The area is identified as being associated with safety train $\frac{\Box}{\Box}$.

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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.

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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 safeshutdown function. MIC-03-09-00015

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.

Tier 2 9A-202 Revision 3

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.

DCD_19-535 S01

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

MIC-03-09-

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 3.40E+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 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 safeshutdown function.

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

MIC-03-09-

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.3.108 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 3.40E+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

FA3-102-01 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 safetyrelated 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 safeshutdown 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 safeshutdown 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 isnot allowed within this building area by administrative controls. There are no pipingsystems 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.3.109 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 threefour 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+023 Btu/ft². B-Class MIC-03-09-1E 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 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.

9A-217 Tier 2 Revision 3 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 wetpipe 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

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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 safeshutdown 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
- <u>B-ESWS</u>
- B-SIS

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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 safeshutdown 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 safeshutdown 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 isnot allowed within this building area by administrative controls. There are no pipingsystems 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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FA3-104 A-Class 1E GTG Room 9A.3.110

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 threefour individual fire zones, FA3-104-01, A-GTG Auxiliary Component room, FA3-104-02, A GTG Fuel Pipng 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 MIC-03-09fire 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 wetpipe 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.

MIC-03-09-00015

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).

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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 safeshutdown 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

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 safeshutdown 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 isnot allowed within this building area by administrative controls. There are no pipingsystems 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 49.2E+043 Btu/ft². FA3-105-02 has the combustible loading from the MIC-03-09gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading for the room of 3.02.7E+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.

MIC-03-09-00015

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 wetpipe 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 isnot allowed within this building area by administrative controls. There are no pipingsystems 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/ | MIC-03-09 ft^2 .

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 safeshutdown function.

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- 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.

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

RCOL2_12.03-12.04-11 S03 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 3.40E+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 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 safetyrelated 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 safeshutdown function.

- C-Essential Chilled Water system
- C-Essential Chiller Unit Area HVAC System
- C-Safety Contrl System
- MIC-03-09-C-ESWS 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 safeshutdown 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 pipingsystems 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 8.8E+02 Btu/ft². FA3-109-02 zone has combustible loading not expected to exceed 2.73E+02 Btu/ft². C-Class 1E GTG MIC-03-09room has combustible loading from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading of 2.52E+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 safeshutdown 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 safeshutdown 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 Dessential 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 3.12.7 E+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 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.

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D-ESWS

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.

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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 Pipng 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 wetpipe 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 safeshutdown 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

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 6.97.4E+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 safeshutdown 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 safeshutdown 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 safeshutdown 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 buildeing. This fire area consists of three individual fire zones, FA3-113-01

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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 combustible fire loading that is not expected to exceed 1.21E+04 Btu/ft². FA3-113-02 has the combustible loading MIC-03-09from the gas turbine package (including fuel in the day tank) results in a maximum anticipated fire loading for the room of 3.02.6E+05 Btu/ft². FA3-113-03 has combustible 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 wetpipe 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 1.09.5E+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 safeshutdown 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 5.74.0E+04 Btu/ft².

MIC-03-09-00015 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 6.04.5E+04 Btu/ft².

MIC-03-09-

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.

Tier 2 9A-246 Revision 3

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 safeshutdown 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 safeshutdown 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 6.65.3E+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.

Tier 2 9A-248 Revision 3

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 safeshutdown function.

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

MIC-03-09-00015

Tier 2 9A-249 Revision 3

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 combastible 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 safeshutdown 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 6.03.3E+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 C.

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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 5.74.4E+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 safeshutdown function.

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

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.

MIC-03-09-00015

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 6-63.8E+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 safeshutdown function.

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

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.

MIC-03-09-00015

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 4.73.6E+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 safeshutdown 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 safeshutdown 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 safeshutdown 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

Tier 2 9A-260 Revision 3

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 4.73.6E+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 safeshutdown 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 safeshutdown function. MIC-03-09-00015

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 safeshutdown 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

Tier 2 9A-262 Revision 3

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-hore fire rating which also exceed NFPA 101 requirement for doors rated at 1½ 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 safeshutdown 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 safeshutdown 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 safeshutdown 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 safeshutdown 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

MIC-03-09-00015

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 safeshutdown 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

<u>Figures 9A-11 shows the location of this fire area on the east PS/B. The FA3-129</u> 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 safeshutdown 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

MIC-03-09-00015

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 safeshutdown function.

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- 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 safeshutdown 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 safeshutdown 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 safeshutdown 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.

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The borders of this fire area are constructed using reinforced concrete and other material IMIC-03-09which 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 safetyrelated 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 safeshutdown 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 safeshutdown 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

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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 safeshutdown function.

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

• 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, two safety trains of equipment in other fire areas can achieve and maintain safeshutdown 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.

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 safeshutdown 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 safeshutdown 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 safeshutdown 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 IMIC-03-09the 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, IMIC-03-09and 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 safetyrelated 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 safeshutdown 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 safeshutdown 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 safeshutdown 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 safeshutdown 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

MIC-03-09-00015

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.3.140 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

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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 safeshutdown 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 safeshutdown. 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. <u>40</u> E+04	MIC-03-09- 00015
FA4-101-02	FA4-101-02 Stairwell <u>4F (B1F</u> ~ 3F)	6.2 <u>9.3</u> E+02	00015
FA4-101-03	Boric Acid Tank Room	7.7 8.0E+02	
FA4-101-04	Auxiliary Building 1F Floor	3. 2 1E+04	
FA4-101-06	Non-Class 1E Electrical Room (FA4-101-06)	3. 3 1E+05	
FA4-101-07	Computer Room	8.2E+03	
FA4-101-08	Non-Class 1E I&C Room (FA4-101-08)	3. <u>53</u> E+04	MIC-03-09- 00015
FA4-101-09	Radwaste Control Room	8.9 <u>5.2</u> E+04	00015
FA4-101-10	FA4-101-10 Corridor	2. <u>43</u> E+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. <u>89</u> E+04	MIC-03-09-
FA4-101-13	Non-Class 1E Electrical Room (FA4-101-13)	2.6E+04	00015
FA4-101-14	Communication System Equipment Room	9.8 1.0E+0 3 4	MIC-03-09- 00015
FA4-101-15	Resin Fill Tank Room FA4-101-15 Corridor	2. 9 7E+04	00013
FA4-101-16	Non-Class1E Battery Room	9.0 8.7E+04	
FA4-101-17	Boric Acid Batching Tank RoomSG Blowdown Cation Bed & Mixed Bed Demineralizers	5.8 6.0E+02	
FA4-101-18	HVAC Equipment Room (FA4-101-18)	2. 9 <u>8</u> E+04	
FA4-101-19	TSC Emergency Filtration Unit & Fan Room	3.9E+04	•
FA4-101-20	HVAC Equipment Room (FA4-101-20)	2. 8 <u>9</u> E+04	MIC-03-09- 00015
FA4-101-21	C/V Low Volume Purge Exhaust Filtration Unit Room	4. <u>08</u> E+04	00013
FA4-101-22	Hold Up Tank Room	2.9 3.0E+02	
FA4-101-23	Instrument Maintenance Shop (Cold)	5.0 3.6E+01	
FA4-101-24	Auxiliary Building EL.76'-5" Floor	2.4E+01	
FA4-101-25	Auxiliary Building Equipment Room	6.5 1.1E+0 <u>56</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 is 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 form 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	2.5 3.1E+04 MIC-03-09-
FA6-101-02	Turbine Building 1F Floor	2.8E+04
FA6-101-03	Electric Room (1F)	8.12.7E+04 MIC-03-09-
FA6-101-04	FA6-101-04 Zone	2. 7 <u>5</u> E+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-

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 voult. 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 valut 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 419140,000 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 drypipe 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 safeshutdown 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 safeshutdown.

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 419 140,000 gallons. Also, | MIC-03-09-

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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 419140,000 gallons. Also, IMIC-03-09in this yault 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.

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 safeshutdown 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 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

FA7-405-01 is provided with a dry-pipe automatic sprinkler system for primary fire suppression <u>and vapor and liquid detection system is installed as primary automatic fire detection.</u> 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. <u>Secondary detection is provided by a manual fire alarm pull station.</u> 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.

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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 419140,000 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.

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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		FA2-127-01	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 Area	FA2-127-04	Piping Room for Charging Pump
R/B	AD	FA2-127	- FAZ-127 AIEd	FA2-127-05	Refueling Water Recirculation Pump Room
R/B	<u>ADN</u>	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		FA2-128-01	FA2-128-01Corridor
R/B	D	FA2-128	B-Spent Fuel Pit Pump Room	FA2-128-02	FA2-128-02 Corridor
R/B	D	FA2-128	- b-Spent ruei rit rump Room	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	В	FA2-151		FA2-151-01	B-RHR Piping Room
R/B	В	FA2-151		FA2-151-02	B-Safeguard Component Area AHU Room
R/B	В	FA2-151		FA2-151-03	B-CS/RHR Hx Room
R/B	В	FA2-151	B-RHR Piping Room Area	FA2-151-04	FA2-151-04 Corridor
R/B	В	FA2-151		FA2-151-05	FA2-151-05 Zone
R/B	В	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	В	FA2-201	FA2-201 Corridor	FA2-201-01	FA2-201-01 Corridor
R/B	А	FA2-202	A-Class 1E Electrical Room	FA2-202-01	A-Class 1E Electrical Room
R/B	В	FA2-203	B-Class 1E Electrical Room	FA2-203-01	B-Class 1E Electrical Room
R/B	С	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	С	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	Α	FA2-209		FA2-209-01	A-Spent Fuel Pit Hx Room
R/B	Α	FA2-209		FA2-209-02	A-Spent Fuel Pit Pump Room
R/B	Α	FA2-209		FA2-209-03	FA2-209-03 Corridor
R/B	Α	FA2-209	A-Spent Fuel Pit Pump Room	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	Α	FA2-209		FA2-209-06	FA2-209-06 3F Eastside Corridor
R/B	А	FA2-209		FA2-209-07	FA2-209-07 Piping Room
R/B	N	FA2-210		FA2-210-10	FA2-210-10 Truck Access
R/B	N	FA2-210	FA2-210 Area	FA2 210 11	Volume Control Tank Room
R/B	Н	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		FA2-210-13	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 Area	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>	FA2-210		FA2-210-22	Free Space
R/B	А	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	- FAZ-212 Alea	FA2-212-02	FA2-212-02 Piping Room
R/B	A	FA2-213	FA2-213 Corridor	FA2-213-01	FA2-213-01 Corridor
R/B	<u>N</u>	FA2-214		FA2-214-01	Volume Control Tank Room
R/B	<u>N</u>	FA2-214		FA2-214-02	FA2-214-02 Piping Room
R/B	<u>N</u>	FA2-214		FA2-214-03	FA2-214-03 Piping Room
R/B	<u>N</u>	FA2-214	FA2-214 Area	FA2-214-04	Pass Sampling Rack Room
R/B	<u>N</u>	FA2-214		FA2-214-05	C/V Radiation Gas Monitor Room
R/B	<u>N</u>	FA2-214		FA2-214-06	Plant Vent Radiation Gas Monitor Room
R/B	<u>N</u>	FA2-214		FA2-214-07	FA2-214-07 4F Westside Corridor
R/B	А	FA2-302	A-Class 1E UPS Room	FA2-302-01	A-Class 1E UPS Room

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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	В	FA2-303	B-Class 1E UPS Room	FA2-303-01	B-Class 1E UPS Room
R/B	А	FA2-304	A-Class 1E I&C Room	FA2-304-01	A-Class 1E I&C Room
R/B	А	FA2-304	A-Class IE I&C NOUIII	FA2-304-02	A-Class 1E I&C Room Raised Floor
R/B	В	FA2-307	B-Class 1E I&C Room	FA2-307-01	B-Class 1E I&C Room
R/B	В	FA2-307	B-Class IE I&C ROUIII	FA2-307-02	B-Class 1E I&C Room Raised Floor
R/B	A,B,C,D	FA2-308		FA2-308-01	Main Control Room
R/B	A,B,C,D	FA2-308	Main Control Room	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	D-Class TE I&C ROOM	FA2-309-02	D-Class 1E I&C Room Raised Floor
R/B	С	FA2-312	C-Class 1E I&C Room	FA2-312-01	C-Class 1E I&C Room
R/B	С	FA2-312	C-Class IE I&C ROUIII	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	С	FA2-314	C-Class 1E UPS Room	FA2-314-01	C-Class 1E UPS Room
R/B	А	FA2-316	FA2-316 Corridor	FA2-316-01	FA2-316-01 Corridor
R/B	А	FA2-317	FA2-317 Corridor	FA2-317-01	FA2-317-01 Corridor
R/B	<u>N</u> <u>A</u>	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, 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)

Tubic DA-1 GO-AL WICH The Aleas and The Zones (Officer 5 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	- 1 AZ-323 Alea	FA2-323-02	FA2-323-02 Piping Room	
R/B	В	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	А	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	С	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	А	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	<u>N</u> <u>D</u>	FA2-407	FA2-407 Area	FA2-407-03	MCR Monitor Room (FA2-407-03)	
R/B	Α	FA2-408	R/B-3F A-Electrical Penetration Area	FA2-408-01	R/B-3F A-Electrical Penetration Area	
R/B	В	FA2-409	B-Electrical Penetration Area	FA2-409-01	R/B-3F B-Electrical Penetration Area	
R/B	В	FA2-409	- D-Electrical Felletration Area	FA2-409-02	R/B-4F B-Electrical Penetration Area	
R/B	С	FA2-410	C-Electrical Penetration Area	FA2-410-01	R/B-3F C-Electrical Penetration Area	
R/B	С	FA2-410	O-LICCUICALI GIIGUAUCII AIGA	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	А	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	<u>€</u> D	FA2-419	FA2-419 3F Non-Radioactive Area Westside Corridor	FA2-419-01	FA2-419-01 3F Non-Radioactive Area Westside Corridor
R/B	А	FA2-420	FA2-420 Area	FA2-420-01	FA2-420-01 3F Non-Radioactive Area Eastside Corridor
R/B	А	FA2-420		FA2-420-02	MCR Monitor Room (FA2-420-02)
R/B	А	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	<u>DC</u>	FA2-423	FA2-423 Corridor	FA2-423-01	FA2-423-01 Corridor
R/B	<u>B</u>	FA2-424	FA2-424 Corridor	FA2-424-01	FA2-424-01 Corridor
R/B	<u>NA, B</u>	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	А	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	А	FA2-507	FA2-507 Area	FA2-507-01	FA2-507-01 Non-Radioactive Zone Eastside Corridor
R/B	А	FA2-507		FA2-507-02	SGBD Water Radiation Monitor Room
R/B	<u> </u>	FA2-508	FA2-508 Area	FA2-508-01	MG Set Room
R/B	<u>C</u> D	FA2-508	- FAZ-300 Alea	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	<u>C</u> D	FA2-510	FA2 F40 Area	FA2-510-01	LRT Room
R/B	<u>CD</u>	FA2-510	FA2-510 Area	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	В	FA2-601	FA2-601 Area	FA2-601-01	A-CCW Surge Tank Room
R/B	В	FA2-601	FAZ-001 Alea	FA2-601-02	C/V Purge Air Handling Unit Room
R/B	С	FA2-602	B-CCW Surge Tank Room	FA2-602-01	B-CCW Surge Tank Room
R/B	А	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	А	FA3-101	A-Essential Chiller Unit & Pump Room	FA3-101-01	A-Essential Chiller Unit & Pump Room
PS/B	В	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	В	FA3-103		FA3-103-01	B-GTG Auxiliary Component Room
PS/B	В	FA3-103		FA3-103-02	B-GTG Fuel Piping Area
PS/B	В	FA3-103	B-Class 1E GTG Room	FA3-103-03	B-Class 1E GTG Room
PS/B	<u>B</u>	FA3-103		FA3-103-04	B-Class 1E Gas Turbine Generator Control Board Room
PS/B	Α	FA3-104		FA3-104-01	A-GTG Auxiliary Component Room
PS/B	Α	FA3-104		FA3-104-02	A-GTG Fuel Piping Area
PS/B	А	FA3-104	A-Class 1E GTG Room	FA3-104-03	A-Class 1E GTG Room
PS/B	A	FA3-104		FA3-104-04	A-Class 1E Gas Turbine Generator Control Board Room
PS/B	N	FA3-105		FA3-105-01	A-AAC Power Source Starter Battery Room
PS/B	<u>₩</u> <u>A</u>	FA3-105	A-AAC GTG Room	FA3-105-02	A-AAC GTG Room
PS/B	N	FA3-105		FA3-105-03	A-AAC Fuel Piping Area
PS/B	<u>BN</u>	FA3-106	FA3-106 Area	FA3-106-01	FA3-106-01 Corridor
PS/B	С	FA3-108	C-Essential Chiller Unit & Pump Room	FA3-108-01	C-Essential Chiller Unit & Pump Room
PS/B	С	FA3-109		FA3-109-01	C-GTG Auxiliary Component Room
PS/B	С	FA3-109	C-Class 1E GTG Room	FA3-109-02	C-GTG Fuel Piping Area
PS/B	С	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		FA3-111-01	D-GTG Auxiliary Component Room
PS/B	D	FA3-111	D-Class 1E GTG Room	FA3-111-02	D-GTG Fuel Piping Area
PS/B	D	FA3-111		FA3-111-03	D-Class 1E GTG Room
PS/B	С	FA3-112	FA3-112 Area	FA3-112-01	FA3-112-01 Corridor
PS/B	N	FA3-113		FA3-113-01	B-AAC Power Source Starter Battery Room
PS/B	С	FA3-113	B-AAC GTG Room	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	А	FA3-115	A-Class 1E Battery Room	FA3-115-01	A-Class 1E Battery Room
PS/B	В	FA3-116	B-Class 1E Battery Room	FA3-116-01	B-Class 1E Battery Room
PS/B	А	FA3-117	A-Class 1E Battery Charger Room	FA3-117-01	A-Class 1E Battery Charger Room
PS/B	В	FA3-118	B-Class 1E Battery Charger Room	FA3-118-01	B-Class 1E Battery Charger Room
PS/B	А	FA3-119	Spare Battery Charger-1 Room	FA3-119-01	Spare Battery Charger-1 Room
PS/B	С	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	С	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	В	FA3-125	A-AAC Selector Circuit Panel Room	FA3-125-01	A-AAC Selector Circuit Panel Room
PS/B	С	FA3-126	B-AAC Selector Circuit Panel Room	FA3-126-01	B-AAC Selector Circuit Panel Room
PS/B	<u>B</u>	FA3-127	FA3-127 Stairwell	FA3-127-01	FA3-127-01 Stairwell

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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	<u>B</u>	<u>FA3-128</u>	FA3-128-01 Piping Room	FA3-128-01	FA3-128-01 Piping Room
PS/B	<u>A</u>	FA3-129	FA3-129-01 Corridor	FA3-129-01	FA3-129-01 Corridor
PS/B	<u>B</u>	FA3-130	FA3-130-01 Corridor	FA3-130-01	FA3-130-01 Corridor
PS/B	<u>D</u>	FA3-131	FA3-131-01 Corridor	FA3-131-01	FA3-131-01 Corridor
PS/B	<u>A</u>	FA3-132	A-Class 1E MOV Inverter Room	FA3-132-01	A-Class 1E MOV Inverter Room
PS/B	<u>B</u>	FA3-133	B-Class 1E MOV Inverter Room	FA3-133-01	B-Class 1E MOV Inverter Room
PS/B	<u>C</u>	FA3-134	C-Class 1E MOV Inverter Room	FA3-134-01	C-Class 1E MOV Inverter Room
PS/B	D	<u>FA3-135</u>	D-Class 1E MOV Inverter Room	FA3-135-01	D-Class 1E MOV Inverter Room
A/B	N	FA4-101		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	Auxiliary Building	FA4-101-06	Non-Class 1E Electrical Room (FA4-101-06)
A/B	N	FA4-101	Auxiliary Building	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)

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		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 RoomFA4-101-15 Corridor
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 RoomSG Blowdown Cation Bed & Mixed Bed Demineralizers Area
A/B	N	FA4-101	Auxiliary Building	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>	N	FA4-101		FA4-101-25	Auxiliary Building Equipment Room
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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9. AUXILIARY SYSTEMS

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		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	Turbine Building	FA6-101-19	Turbine Building Operation Floor
T/B	N	FA6-101	Turbine building	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	А	FA7-101	ESW Piping Tunnel including ESW Pipe Chase	FA7-101-01	A-ESW Piping Tunnel including ESW Pipe Chase
O/B	В	FA7-102	ESW Piping Tunnel including ESW Pipe Chase	FA7-102-01	B-ESW Piping Tunnel including ESW Pipe Chase
O/B	С	FA7-103	ESW Piping Tunnel including ESW Pipe Chase	FA7-103-01	C-ESW Piping Tunnel including ESW Pipe Chase
O/B	D	FA7-104	ESW Piping Tunnel including ESW Pipe Chase	FA7-104-01	D-ESW Piping Tunnel including ESW Pipe Chase
O/B	Α	FA7-401	Power Source Fuel Storage Vault	FA7-401-01	A- Class 1E GTG Fuel Storage Vault
O/B	В	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	С	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	Area Designation:	C/V Area	Applicable Regulatory and Code
				Ref(s):
Floor(s):	2F			IBC, RG 1.189; NFPA 10, 14, 72 and
•		Zone Designation:	C/V Reactor Coolant Drain Tank	804
Fig:	9A-5]	Room	
Sect:	3.1	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

Potential Combustibles Heat Release (Btu) Item 3.5E+05 Instruments

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	8.8E+02
Maximum Anticipated Combustible	1.3E+03
Loading:	

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
	_

Floor Area (ft ²)	A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	TI ci da
400		

Fire Impact to Zone Suppression System Fails to Op. Suppression System Operates here is no safe-shutdown ircuit in this zone to be lamaged.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 27 of 306)

Fire Zone: **FA2-101-01** FA2-101 Stairwell (B1F~Roof) Applicable Regulatory and Code Building: Reactor Area Designation: Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F-Roof Zone Designation: FA2-101-02 Stairwell 804 Fig: 9A-1 to 9A-10 (B1F~Roof) Sect: 3.2 Associated Safety Division(s)

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	FA3-101-01	
	FA3-103-03See Table	
	<u>9A-3</u>	

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 Comb	ustibles
Item	Heat Release (Btu)
Transient Only	9.3E+04

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible	9.3E+02
Loading:	

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

	Suppression System Operates	Suppression System Fails to Op.
	A fire in this area credibly	There is no safe-shutdown
	involves transient material	circuit in this fire zone to be
Floor	which personnel would notice	damaged.
Area	a fire involving and initiate fire	
(ft ²)	suppression using portable	
()	extinguishers or manual hose	
	streams before damage.	
100	on carrie solo a damage.	

Fire Impact to Zone

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

(T/D) Room

A-Emergency Feedwater Pump

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 13, 14, 72 and 804

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- 420 507-01
FA2-201-01	See Table 9A-3	

Associated Safety Division(s)

Zone Designation:

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)	
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 (ft²)

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this area would minimize	damage safe-shutdown	
damage to safety-related	functions associated with safety	
equipment consistent with	train A. Train B, C and D remain	
GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 29 of 306)

Fire Zone: **FA2-103-01 B-Emergency Feedwater Pump** Building: Reactor Area Designation: Applicable Regulatory and Code (M/D) Room Ref(s): B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): **B-Emergency Feedwater Pump** Zone Designation: 804 9A-1, 9A-2 Fig: (M/D) Room Sect: 3.4 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-102-01	-	FA2- 202 104-01
FA2-104-01		
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.

MIC-03-09-00015

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 Zone Combustible Summary		
Btu/ft ²		
Anticipated Combustible Loading:	2.9E+04	
Maximum Anticipated Combustible	3.5E+04	
Loading:		

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

Floor Area (ft ²)	suppressed will minimiz the safety-re consistent v
400	

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train B. Train A, C and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 30 of 306)

Fire Zone: **FA2-104-01 A-Component Cooling Water** Applicable Regulatory and Code Building: Reactor Area Designation: **Pump Room** B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): **A-Component Cooling Water** Zone Designation: 804 9A-1, 9A-2 Fig: **Pump Room** 3.5 Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-102-01	FA <mark>7</mark> 2-10 <mark>4</mark> 3-01	FA2-201-01
FA2-103-01		FA2-202-01
FA2-105-01	See Table 9A-3	
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.

MIC-03-09-00015

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>60</u> E+04
Maximum Anticipated Combustible	3.1 2.4E+04
Loading:	

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
	· · · · · · · · · · · · · · · · · · ·

Floor	
Area	
(ft ²)	
()	
1, <mark>4</mark> 800	
	l

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train A. Train B, C and D remain
consistent with GDC-3.	free from the damage.

MIC-03-09-00015

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

Area Designation: B-Component Cooling Water Pump Room

Applicable Regulatory and Code Ref(s):

Zone Designation:

3.6

B-Component Cooling Water Pump Room

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
FA2-104-01	-	FA2-201-01
FA2-106-01		FA2-203-01
FA2-111-01		
FA7-102-01		

Associated Safety Division(s)

Fire Barrier Description:
Walls of reinforced con

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	

Floor
Area
(ft ²)
, ,
4 000
1,800

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	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train B. Train A, C and D remain	
consistent with GDC-3.	free from the damage.	

Fire Zone Combustible Summary

Btu/ft²

Anticipated Combustible Loading: 2.5E+04

Maximum Anticipated Combustible Loading: 3.0E+04

Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 32 of 306)

Fire Zone: **FA2-106-01** Building: Reactor Floor(s): B1F, B1MF Fig: 9A-1, 9A-2 Sect: 3.7 Associated Safety Division(s)

C-Component Cooling Water Area Designation: **Pump Room C-Component Cooling Water** Zone Designation:

Pump Room

Automatic smoke

Fire Hose Station

Fire Detection - Primary

Fire Suppression – Primary

Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup Manual Fire Alarm Pull Station

Fire Suppression - Backup

Portable Fire Extinguisher

Applicable Regulatory and Code

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Anticipated Combustible Loading:

Maximum Anticipated Combustible

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 Zone Combustible Summary

Loading:

Btu/ft²

2.5E+04

3.0E+04

Floor
Area
(ft ²)
1,800

Floor
Area
(ft ²)
, ,
4 000
1,800

Fire Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train C. Train A, B and D remain
consistent with GDC-3.	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 33 of 306)

Fire Zone: FA2-107-01

Building: Reactor Area Designation:

Floor(s): B1F, B1MF

Zone Designation:

Fig: 9A-1, 9A-2

Sect: 3.8 Associated Safety Division(s)

Area Designation:

D-Component Cooling Water
Pump Room

Zone Designation:

D-Component Cooling Water

Pump Room

Fire Detection - Primary

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-106-01	FA7-104-01	FA2-205-01
FA2-108-01		FA2-206-01
FA2-109-01		
FA7-112-01		

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.

MIC-03-09-00015

Detential Combustibles		
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	
II I		

The Beteetten Timary	The Betection Backap
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	3.2E+04
Loading:	

Floor Area (ft²) 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.

Fire Impact to Zone

Suppression System Fails to Op.

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 B1F, B1MF Floor(s): 9A-1 to 9A-4 Fig:

D-Emergency Feedwater Pump Area Designation: (T/D) Room

(T/D) Room

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

3.9 Sect:

Associated Safety Division(s)

Zone Designation:

D-Emergency Feedwater Pump

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- 423 509-01
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

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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

are rated to provide 3-hour fire resistance.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.4E+04
Maximum Anticipated Combustible	1.1E+05
Loading:	

Floor Area (ft^2) 550

Fire Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in	A fire has the potential to
this area would minimize	damage safe-shutdown
damage to safety-related	functions associated with safety
equipment consistent with	train D. Train A, B and C remain
GDC-3.	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 35 of 306)

Fire Zone: **FA2-109-01** C-Emergency Feedwater Pump Building: Reactor Area Designation: Applicable Regulatory and Code (M/D) Room Ref(s): B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): C-Emergency Feedwater Pump Zone Designation: 804 9A-1, 9A-2 Fig: (M/D) Room Sect: 3.10 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-107-01	-	FA2- 205 112-01
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.

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.9E+04
Maximum Anticipated Combustible	3.5E+05
Loading:	

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	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train C. Train A, B and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 36 of 306)

Fire Zone: **FA2-110-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-110 E.V. Shaft Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to Roof Zone Designation: FA2-110-01 E.V. Shaft 804 Fig: 9A-1 to 9A-10 Sect: 3.11 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	
FA2-321-01	FA2-604-01	See Table 9A-3
FA2-4 23 19-	FA3-109-03	
01		

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.

MIC-03-09-00015

Data Cal Occal a Cities		
Potential Combustibles		
Item	Heat Release (Btu)	
Transient Only	9.3E+04	
•		

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible	1.9E+03
Loading:	

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Compression Drimon.	Fire Cumpression Beekup
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 fire in this area credibly	There is no safe-shutdown	
involves transient material	circuit in this area to be	
which personnel would notice	damaged.	
a fire involving and initiate fire		
suppression using portable		
extinguishers or manual hose		
streams before damage.		

Floor Area (ft²)

Table 9A-2 Fire Hazard Analysis Summary (Sheet 38 of 306)

Fire Zone: **FA2-112-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-112 Corridor Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF Zone Designation: FA2-112-01 Corridor 804 Fig: 9A-1, 9A-2 3.13 Associated Safety Division(s) Sect: D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-106-01	FA2-1 10 09-01	FA2- 152 204-
FA2-107-01	FA2-111-01	0 <mark>4</mark> 1
FA2-108-01	FA2-115-02	FA2-205-01
FA2-109-01	FA2-115-03See Table	FA2-206-01
	<u>9A-3</u>	
		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.

MIC-03-09-00015

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	
	0.02 00	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.4 1.9E+04
Maximum Anticipated Combustible	2. 9 2E+04
Loading:	

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fin O Bit	Fin O Bull
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone

Suppression System Fails to Op.

	A quickly detected and	A fire has the potential to
Floor	suppressed fire in this room	damage safe-shutdown
Area	will minimize fire damage to the safety-related equipment	functions associated with safety train D. Train A, B and C remain
(ft ²)	consistent with GDC-3.	free from the damage.
(π-)	Consistent with GDC-3.	nee nom the damage.
1,550		
2,000		

Suppression System Operates

Table 9A-2 Fire Hazard Analysis Summary (Sheet 40 of 306)

Fire Zone: **FA2-113-02** A-SI Pump Room, CS/RHR Building: Reactor Area Designation: Applicable Regulatory and Code **Pump Room Area** Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: A-CS/RHR Pump Room 804 Fig: 9A-1 Associated Safety Division(s) Sect: 3.14

Automatic smoke

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		
FA2-12 <mark>0</mark> 1-01		

Fire Barrier Description:

the safety-related equipment

consistent with GDC-3.

Fire Detection – Primary

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.

Fire Detection - Backup

train A. Train B, C and D remain

free from the damage.

Manual Fire Alarm Pull Station

Potential Combustibles		
Item	Heat Release (Btu)	
Lube oil Panels High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	1.8E+05 9.4E+05 2.9E+06 2.2E+06 3.9E+06 3.4E+06	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible	3.0E+04
Loading:	

Floor Area (ft ²)
550

Fire S	uppression – Primary		Fire Suppression - Backup
Fire Hose St	ation	Port	table Fire Extinguisher
			-
	Г:		ant to Zama
	Fire Impact to Zone		
	Suppression System Operate	es	Suppression System Fails to Op.
	A quickly detected and		A fire has the potential to
	suppressed fire in this roo	m	damage safe-shutdown
Floor	will minimize fire damage t		functions associated with safety

Table 9A-2 Fire Hazard Analysis Summary (Sheet 45 of 306)

Fire Zone: **FA2-114-03** B-SI Pump Room, CS/RHR Applicable Regulatory and Code Building: Reactor Area Designation: **Pump Room Area** Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: FA2-114-03 Corridor 804 Fig: 9A-1 Sect: 3.15 Associated Safety Division(s) В

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor Wall	Ceiling
FA2-111-01	- <u>FA3-106-01</u>	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.

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+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

ı	Floor
	Area
	(ft ²)
	(11.)
	550

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	A fire has the potential to		
suppressed fire in this room	damage safe-shutdown		
will minimize fire damage to	functions associated with safety		
the safety-related equipment	train B. Train A, C and D remain		
consistent with GDC-3.	free from the damage.		
	· ·		

	Table	9A-2 Fire Haza	rd Anal	ysis Su	umma	y (Sheet 52 of 3	06)		
Fire Zone: FA2-118-01									
	Reactor	Area Designation:		ation: FA2-118 E.V. Shaft			Applicable Regulatory and Code Ref(s):]	
Floor(s): B	1F to 4F]					IE	BC, RG 1.189; NFPA 10, 14, 72 and	
Fig: 9A-	1 to 9A-8	Zone Desi	gnation:	FA2-118	8-01 E.\	/. Shaft	8	04	
	3.1 <mark>9</mark> 8	Associated Safety Div	rision(s)		1	1			MIC-03-09-
	Wall	Пост		ailina		Fire Device December			00015
Adjacent Fire Zones:	FA2-119-01	Floor FA2-20913-051		eiling Roof		Fire Barrier Descript Reinforced concre		lls providing in excess of 3-hour	MIC-03-09-
(Primary Inter face	FA2-128-01	FA2-21 <mark>0</mark> 4- 21 07	I (OO)			fire resistive capab	ility. l	Elevator doors fire resistant per	00015
Listed See Table 9A-3	FA2-128-02	FA2-418-01						ration and other opening are	
For Complete Listing)	FA2-130-01	See Table 9A-3				protected to provid	de 3-h	our fire resistance.	
Potential (Combustibles				L				J
Item Transient (t Release (Btu) 9.3E+04				n – Primary c detection.		Fire Detection - Backup nual Fire Alarm Pull Station	
				Fire Su	unnressi	on – Primary		Fire Suppression - Backup	-
			Fire	Hose Sta		on minary	Por	table Fire Extinguisher	
									-
				Г		Fir	e Imp	act to Zone	
						ssion System Operat	tes	Suppression System Fails to Op.	
						n this area credibly es transient materia		There is safe-shutdown circuit in this zone to be damaged.	
Fire Zone Com	bustible Summ	ary	Flo	or		personnel would no		in this zone to be damaged.	
		Btu/ft ²	Are (ft ²		a fire involving and initiate fire suppression using portable				
Anticipated Combustible Load	ling:	nil				uishers or manual h	ose		
Maximum Anticipated Combus Load		1.9E+03	50)	stream	s before damage.			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 53 of 306)

Fire Zone: **FA2-119-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-119 Stairwell Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to 4F Zone Designation: FA2-119-01 Stairwell 804 Fig: 9A-1 to 9A-8 Sect: Associated Safety Division(s) 3.2019 Fire Barrier Description:

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	FA2-2 09 13-0 5 1	Roof
FA2-128-01	FA2-21 0 4- 21 07	
FA2-128-02	FA2-418-01	
FA2-130-01	See Table 9A-3	

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 0	Only 9.3E+04	

Fire Zone Combustible Summary			
	Btu/ft ²		
Anticipated Combustible Loading:	nil		
Maximum Anticipated Combustible	9.3 6.2E+02		
Loading:			

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

Floor
Area
(ft ²)
(10)
1 <mark>0</mark> 50

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A fire in this area credibly	There is no safe-shutdown		
involves transient material	circuit in this zone to be		
which personnel would notice	damaged.		
a fire involving and initiate fire			
suppression using portable			
extinguishers or manual hose			
streams before damage.			
distante botoro damage.			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 54 of 306)

Fire Zone: **FA2-121-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-121 Corridor Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: FA2-121-01 Corridor 804 Fig: 9A-1 3.220 Associated Safety Division(s) Sect:

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	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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.6E+04
Maximum Anticipated Combustible	1.9E+04
Loading:	

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	There is no safe-shutdown
Floor	suppressed fire in this room	circuit in this zone to be
	will minimize fire damage to	damaged.
Area	the safety-related equipment	
(ft ²)	consistent with GDC-3.	
2,700		
•		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 56 of 306)

Fire Zone: **FA2-122-01** Building: Reactor Area Designation: FA2-122 Stairwell (B1F~Roof) Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to 4F Zone Designation: FA2-122-01 Stairwell 804 9A-1 to 9A-8 Fig: (B1F~Roof) MIC-03-09-Sect: 3.2<mark>3</mark>1 Associated Safety Division(s) 00015 Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-121-01 FA2-210-10 FA2-210-13 Structural barriers surrounding this fire zone consist of (Primary Inter face FA2-121-02 primarily concrete walls providing 3-hour fire resistant MIC-03-09-Listed See Table 9A-3 FA2-155-01 See Table 9A-3 barrier for the stairwell. Fire doors are provide for each 00015 For Complete Listing) FA2-209-03 entry to the stairwell and all penetrations into the stairwell are protected for 3-hour fire resistance to assure no fire

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	9.3E+02

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

propagation into or out of the stairwell.

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A fire in this area credibly	There is no safe-shutdown	
involves transient material	circuit in this zone to be	
which personnel would notice	damaged.	
a fire involving and initiate fire		
suppression using portable		
extinguishers or manual hose		
streams before damage.		

Floor Area (ft²)

100

Table 9A-2 Fire Hazard Analysis Summary (Sheet 57 of 306)

Fire Zone: **FA2-123-02 Tendon Gallery Area** Applicable Regulatory and Code Building: Reactor Area Designation: Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to 1F Zone Designation: Tendon Gallery Area 804 9A-1 to 9A-3 Fig: 3.242 Sect: Associated Safety Division(s) N

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	
FA2-11 <mark>43</mark> -	FA2-115-02	See Table 9A-3
0 <u>42</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.

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Potential Combustibles		
Item	Heat Release (Btu)	
Transient Only	9.3E+04	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible	1.9E+01
Loading:	

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 impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A fire in this area credibly	There is no safe-shutdown	
involves transient material	circuit in this zone to be	
which personnel would notice	damaged.	
a fire involving and initiate fire		
suppression using portable		
extinguishers or manual hose		
streams before damage.		

Floor Area (ft²)

Table 9A-2 Fire Hazard Analysis Summary (Sheet 62 of 306)

Fire Zone: **FA2-127-02** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-127 Area Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1MF to 1MF Zone Designation: Piping Room 804 9A-2 to 9A-4 Fig: Sect: Associated Safety Division(s) A,D 3.1826

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	FA2-2 09 13-0 5 1
FA2-127-07	FA2-129-01	FA2-21 <mark>04-4</mark> 01
FA2-128-01	FA2-130-01	FA2-21 <mark>04-4</mark> 02
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.

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00015

Potential Combustibles			
Item	Heat Release (Btu)		
Grease High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables Instruments	5.5E+05 4.8E+06 3.6E+06 6.3E+06 5.6E+06 8.8E+04		

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	3.8E+04	
Maximum Anticipated Combustible Loading:	4.6E+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
	_

Floor
Area
(ft ²)
()
550

F' 1			
Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown		
suppressed fire in this room	circuit in this fire zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment			
consistent with GDC-3.			

		Table	9A-2 Fire Hazai	rd Anal	ysis Sumr	nary (Sheet 66 of 3	306)	
Fire Zone: FA2	2-127-06							
Building:		Reactor	Area Desi	gnation:	FA2-127 Ar	ea	Applicable Regulatory and Code Ref(s):	
Floor(s):		1F, 1MF					IBC, RG 1.189; NFPA 10, 14, 72 and	
			Zone Desi	gnation:	Seal Water	Hx Room	804	
Fig:		A-3, 9A-4						MIC 02 00
Sect:		3. 18 <u>26</u>	Associated Safety Div	ision(s)		A,D N		MIC-03-09- 00015
		\A/- II			. 22	F: D D	The second secon	1
		Wall	Floor		eiling	Fire Barrier Descrip		1
Adjacent Fire	Zones:	FA2-127-02	FA2-127-02	FA2	-127-02		ete walls providing in excess of 3-hour	1
(Primary Inter face		FA2-128-02				fire resistive capal	bility. Three hour fire rated door to area	1
Listed See Table 9A-	3						and penetrations to fire area are	1
For Complete Listing)						ir fire resistance. This zone has	
₋	,		ı			•	ings with spatial separation to mitigate	
							•	1
						Tire spread with ac	ljacent zones in this fire area.	1

Potential Combustibles		
Item		Heat Release (Btu)
	Gasket	4.0E+06

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2.0E+02	
Maximum Anticipated Combustible Loading:	7.0E+02	

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

Floor
Area
(ft ²)
(-)
000
200

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown		
suppressed fire in this room	circuit in this fire zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment	_		
consistent with GDC-3.			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 67 of 306)

Fire Zone: **FA2-127-07** Building: Reactor Area Designation: FA2-127 Area Applicable Regulatory and Code 1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-127-07 Corridor 804 Fig: 9A-4 3.1826 Associated Safety Division(s) Sect: A,D

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	FA2-2 09 13-0 5 1
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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+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	There is no safe-shutdown	
	suppressed fire in this room	circuit in this fire zone to be	
Floor	will minimize fire damage to	damaged.	
Area	the safety-related equipment		
(ft^2)	consistent with GDC-3.		
` '			
550			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 68 of 306)

Fire Zone: **FA2-127-08** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-127 Area Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-127-08 Piping Room 804 9A-5, 9A-6 Fig: Sect: 3.1826 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
FA2-153-05	FA2-127-07	FA2-210- 0 13
FA2-2 09 13-	FA2-153-01	FA2-214-07
0 5 1	FA2-153-04	FA2-411-01
FA2-322-01	FA2-212-02	FA2-417-01
	FA2-322-01	
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)
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 Zone Combustible Summary			Floor
,			Area
	Btu/ft ²		(ft ²)
Anticipated Combustible Loading:	3.1E+04		(-)
Maximum Anticipated Combustible Loading:	3.7E+04		1,000

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 Fails to Op.		
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 B-Spent Fuel Pit Pump Room** Building: Reactor Area Designation: Applicable Regulatory and Code Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-128-01 Corridor 804 Fig: 9A-2 Sect: 3.1827 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
FA2-118-01	FA2-130-01	FA2-128-02
FA2-119-01		
FA2-127-02	See Table 9A-3	
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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.3E+04
Maximum Anticipated Combustible Loading:	1. <mark>5</mark> <u>6</u> E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
<u> </u>	= -
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Floor
Area
(ft ²)
(/
800 750

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train D. Train A, B and D remain
consistent with GDC-3.	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 70 of 306)

Fire Zone: FA2-128-02

Building: Reactor

Floor(s): 1F, 1MF

Fig: 9A-3, 9A-4

3.1827

Area Designation: B-Spent Fuel Pit Pump Room

FA2-128-02 Corridor

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)

Sect:

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

Zone Designation:

Associated Safety Division(s)

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	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

Floor Area (ft ²)
2 650

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	
ression System Fails to Op.	
has the potential to	
ge safe-shutdown	
ions associated with safety	
D. Train A, B and D remain	
rom the damage.	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.5E+04
Maximum Anticipated Combustible Loading:	3.0E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 83 of 306)

Fire Zone: FA2-152-03

Building: Reactor Area Designation:

Floor(s): 1F, 1MF

Zone Designation:

Fig: 9A-3, 9A-4

Sect: 3.2731 Associated Safety Division(s)

Area Designation: C-RHR Piping Room Area

Zone Designation: C-CS/RHR Hx Room

Automatic smoke

С

Fire Detection – Primary

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Manual Fire Alarm Pull Station

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	FA2-2 09 13-0 5 1
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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Floor Area (ft²)

Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher
File flose Station	Fortable Fire Extinguisher
Fir	e Impact to Zone
Suppression System Operation	
A quickly detected and	A fire has the potential to

Fire impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train C. Train A, B and D remain
consistent with GDC-3.	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 84 of 306)

Fire Zone: **FA2-152-04** Building: Reactor Floor(s): 1F, 1MF Fig: 9A-3, 9A-4

3.2731

C-RHR Piping Room Area Area Designation: Zone Designation: FA2-152-04 Corridor

С

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
FA2-128-02	FA2-112-01	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

Associated Safety Division(s)

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	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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.4 <u>5</u> E+04
Maximum Anticipated Combustible Loading:	2.9 3.0E+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

	A quickly detected and	A fire has the potential to
Floor	suppressed fire in this room will minimize fire damage to	damage safe-shutdown functions associated with safety
Area	the safety-related equipment	train C. Train A, B and D remain
(ft ²)	consistent with GDC-3.	free from the damage.
1,700		
1,650		

Suppression System Operates

m the damage. MIC-03-09-00015

Suppression System Fails to Op.

Fire Impact to Zone

Table 9A-2 Fire Hazard Analysis Summary (Sheet 86 of 306)

Fire Zone: FA2-152-06

Building: Reactor

Floor(s): 2F, 2MF

Area Designation: C-RHR Piping Room Area

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fig: **9A-5, 9A-6** Sect: **3.2731**

Associated Safety Division(s)

Zone Designation:

R/B-2F C-Piping Penetration Area (FA2-152-06)

MIC-03-09-00015

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	FA2-419-01
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.

MIC-03-09-00015

Potential Combustibles	
Heat Release (Btu)	
9.4E+06	
2.9E+06	
2.2E+06	
3.9E+06	
3.4E+06	
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

Floor Area (ft²)

Fire Impact to Zone	
Suppression System Fails to Op.	
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 89 of 306)

Fire Zone: **FA2-153-03 D-RHR Piping Room Area** Building: Reactor Area Designation: Applicable Regulatory and Code IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 1F, 1MF Zone Designation: D-CS/RHR Hx Room 804 9A-3, 9A-4 Fig: 3.2832 Associated Safety Division(s) Sect: D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-128-02	FA2-153-01	FA2-153-05
FA2-152-03		
FA2-153-01		
FA2-153-04		
FA2-208-01		

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)
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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. 4 3E+04
Maximum Anticipated Combustible	2. <mark>67</mark> E+04
Loading:	

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
	3

Floor
Area
(ft ²)
()
90 850

Fire Impact to Zone		
Suppression System Operates Suppression System Fails to C		
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train D. Train A, B and C remain	
consistent with GDC-3.	free from the damage.	

MIC-03-09-00015

MIC-03-09-

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 91 of 306)

Fire Zone: FA2-153-05

Building: Reactor

Floor(s): 2F, 2MF

Fig: 9A-5, 9A-6

Area Designation:

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Zone Designation:
Fig: 9A-5, 9A-6
Sect: 3.2832 Associated Safety Division(s)

R/B-2F D-Piping Penetration Area (FA2-153-05)

D-RHR Piping Room Area

MIC-03-09-00015

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	FA2-2 09 13-0 5 1	FA2-408-01
FA2-152-05		FA2-411-01
	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 Combu	ustibles
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

Floor Area (ft ²)
1,250

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 ∠one		
Suppression System Fails to Op.		
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.		

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3.2E+04

Table 9A-2 Fire Hazard Analysis Summary (Sheet 92 of 306)

Fire Zone: **FA2-154-01** Building: Reactor Floor(s): B1MF to 1MF Fig: 9A-2 to 9A-4

3.2133

A-RHR Piping Room Area Area Designation: Zone Designation: A-RHR Piping Room

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)

Sect:

Wall	Floor	Ceiling
FA2-154-02	FA2-113-01	FA2-154-03
FA2-154-03	FA2-113-02	FA2-210-13
FA2-154-0 3 4	FA2-113-03	FA2-408-01
FA2-155-01	See Table 9A-3	FA2-411-01

Associated Safety Division(s)

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	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 Zone Combustible Summary

Loading:

Anticipated Combustible Loading:

Maximum Anticipated Combustible

Btu/ft²

2.4E+04

2.8E+04

Floor Area (ft ²)
1,300

Floor Area (ft ²)
1,300

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	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 95 of 306)

Fire Zone: FA2-154-04

Building: Reactor

Floor(s): 1F, 1MF

Fig: 9A-3, 9A-4

3.2133

Area Designation: A-RHR Piping Room Area

Zone Designation: A-Safeguard Component Area

AHU Room

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
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		

Associated Safety Division(s)

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)
Item Gasket High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	Heat Release (Btu) 1.2E+06 2.4E+06 1.8E+06 3.2E+06 2.8E+06

Fire Detection – Primary	Fire Detection - Backup	
Automatic smoke	Manual Fire Alarm Pull Station	
Fire Cuppression Drimon,	Fire Cumpression Bookup	
Fire Suppression – Primary	Fire Suppression - Backup	
Fire Suppression – Primary Fire Hose Station	Fire Suppression - Backup Portable Fire Extinguisher	
11		
11		
11		
11		

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>58</u> E+04
Maximum Anticipated Combustible Loading:	3. <mark>0</mark> 4E+04

Floor Area (ft²)

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

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MIC-03-09-

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MIC-03-09-

MIC-03-09-

00015

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 99 of 306)

Fire Zone: **FA2-201-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-201 Corridor Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 1F, 1MF Zone Designation: FA2-201-01 Corridor 804 9A-3, 9A-4 Fig: Sect: 3.2935 Associated Safety Division(s) В

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- 3 203-01
FA2-151-04		FA2-30 7 2-0 2 1
FA2-202-01	See Table 9A-3	FA2-3 <u>2</u> 0 8 -0 3 1

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 High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	9.5E+04 8.5E+06 6.3E+06 1.1E+07 9.9E+06

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+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

Floor Area (ft ²)
1,600

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train B. Train A, C and D remain
consistent with GDC-3.	free from the damage.

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Fire Hazard Analysis Summary (Sheet 100 of 306) Table 9A-2

Fire Zone: **FA2-202-01** Building: Reactor Area Designation: A-Class 1E Electrical Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 1F, 1MF Zone Designation: A-Class 1E Electrical Room and 804 Fig: 9A-3, 9A-4 Associated Safety Division(s) Sect: 3.306 Α

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	FA2-103-01	FA2-302-01
FA2-201-01	FA2-104-01	FA2-303-01
FA2-203-01	FA2-111-01	FA2-304-02
FA2-302-01	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.

MIC-03-09-00015

MIC-03-09-

00015

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	4. <mark>8</mark> 3E+07
Panels	1.1E+06
Instruments	1. <mark>8</mark> 4E+05
High Voltage Cables	5.7 4.6E+06
Low Voltage Cables	1.0 8.4E+08
Control Cables	<u>54</u> .1E+07
Instrumentation Cables	7.86.2E+06

Fire Zone Combustible Summary

Loading:

Anticipated Combustible Loading:

Maximum Anticipated Combustible

Btu/ft²

9.98.2E+04

1.29.8E+04

Floor
Area
(ft ²)
(-)
2,200

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke	Manual Fire Alarm Pull Station
Detection Alarm	
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Impact to Zone

Suppression System Fails to Op.

_	MIO 00 00
	MIC-03-09-
	00015
	MIC-03-09-
	00015
п	

	A quickly suppressed fire in	A fire has the potential to
	this space which is possible	damage safe-shutdown
loor	due to the early smoke	functions associated with safety
∖rea	detection system which	train A. Train B, C and D remain
(ft ²)	discharges the gaseous agent will prevent damage to the	free from the damage.
,200	safety-related equipment consistent with GDC-3.	

Suppression System Operates

MIC-03-09-00015

Tier 2 9A-418

Table 9A-2 Fire Hazard Analysis Summary (Sheet 101 of 306) Fire Zone: **FA2-203-01** Building: Reactor Area Designation: **B-Class 1E Electrical Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 1F, 1MF Zone Designation: **B-Class 1E Electrical Room** and 804 Fig: 9A-3, 9A-4 MIC-03-09-Associated Safety Division(s) Sect: 3.3<mark>4</mark>7 В 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-FA2-151-04 Adjacent Fire Zones: FA2-105-01 FA2-303-01 Walls of reinforced concrete or other material providing a 00015 (Primary Inter face FA2-201-01 FA2-201-01 FA2-304-02 minimum 3-hour fire resistance rating form the Listed See Table 9A-3 FA2-202-01 FA2-202-01 FA2-307-042 boundaries of this room. The door to the room is 3-hour For Complete Listing) FA2-204-01 FA2-111-01 FA2-308-03 fire rated and all openings and penetrations into the room FA6-101-04 are rated to provide 3-hour fire resistance. Potential Combustibles Item Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup MIC-03-09-Switchgear and Control Centers 3.97E+07 Air Aspirating Very Early Smoke Manual Fire Alarm Pull Station 00015 **Panels** 5.1E+06 **Detection Alarm** Instruments 1.85E+05 MIC-03-09-**High Voltage Cables** 3.02.6E+07 00015 Low Voltage Cables 3.12.7E+07 **Control Cables** 2.41E+07 Fire Suppression – Primary Fire Suppression - Backup Instrumentation Cables Clean Gaseous Agent 65.7E+06 Fire Hose Station

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.4 <u>6.6</u> E+04
Maximum Anticipated Combustible Loading:	8 <u>7</u> .9E+04

Floor Area (ft²)

Fire Impact to Zone	
Suppression System Fails to Op.	
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** Applicable Regulatory and Code Building: Reactor Area Designation: C-Class 1E Electrical Room Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 1F, 1MF Zone Designation: C-Class 1E Electrical Room and 804 9A-3, 9A-4 Fig: 3.328 Associated Safety Division(s) С Sect:

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-152-04	FA2-106-01	FA2-308-03
FA2-203-01	FA2-112-01	FA2-309-02
FA2-205-01	FA2-205-01	FA2-312-0 1 2
FA2-206-01	FA2-206-01	FA2-314-01
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.

MIC-03-09-00015

MIC-03-09-00015 MIC-03-09-00015

MIC-03-09-

00015

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	3. <mark>9</mark> 7E+07
Panels	5.1E+06
Instruments	<u>3.0</u> 2.6E+07
High Voltage Cables	3.1 2.7E+07
Low Voltage Cables	2. <mark>41</mark> E+07
Control Cables	<u>€5</u> .7E+06
Instrumentation Cables	1. <mark>85</mark> E+05
	_

Fire Zone Combustible Summary	
Btu/ft ²	
7.4 6.6E+04	
<u>87</u> .9E+04	

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke	Manual Fire Alarm Pull Station
Detection Alarm	
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in	A fire has the potential to
this space which is possible	damage safe-shutdown
due to the early smoke	functions associated with safety
detection system which	train C. Train A, B and D remain
discharges the gaseous agent	free from the damage.
will prevent damage to the	
safety-related equipment	
consistent with GDC-3.	
Consistent with ODO-5.	

I	Floor
	Area
	(ft ²)
	, ,
	1,850

Fire Hazard Analysis Summary (Sheet 103 of 306) Table 9A-2 Fire Zone: **FA2-205-01** Building: Reactor Area Designation: **D-Class 1E Electrical Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 1F, 1MF Zone Designation: **D-Class 1E Electrical Room** and 804 Fig: 9A-3, 9A-4 MIC-03-09-Associated Safety Division(s) Sect: 3.339 D 00015 Wall Floor Ceiling Fire Barrier Description: Walls of reinforced concrete or other material providing a Adjacent Fire Zones: FA2-108-01 FA2-107-01 FA2-204-01 MIC-03-09-(Primary Inter face FA2-152-04 FA2-108-01 FA2-308-03 minimum 3-hour fire resistance rating form the 00015 Listed See Table 9A-3 FA2-204-01 FA2-10912-01 FA2-309-02 boundaries of this room. The door to the room is 3-hour For Complete Listing) FA2-206-01 See Table 9A-3 FA2-312-021 fire rated and all openings and penetrations into the room FA2-313-01 are rated to provide 3-hour fire resistance. Potential Combustibles Fire Detection - Primary Fire Detection - Backup MIC-03-09-Air Aspirating Very Early Smoke Manual Fire Alarm Pull Station 00015 **Detection Alarm** MIC-03-09-00015

Potential Combustibles	
Item	Heat Release (Btu)
Switchgear and Control Centers	4. <mark>7</mark> 3E+07
Panels	1.1E+06
Instruments	3. <mark>8</mark> <u>0</u> E+06
High Voltage Cables	9 7.9E+07
Low Voltage Cables	6.1 4.9E+07
Control Cables	1. <mark>3</mark> 0E+07
Instrumentation Cables	1. <mark>8</mark> 4E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	9.8 8.1E+04
Maximum Anticipated Combustible Loading:	1.2 9.7E+05

Floor
Area
(ft ²)
2,300
2,300

Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station
Fire	e Impact to Zone

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in	A fire has the potential to
this space which is possible	damage safe-shutdown
due to the early smoke	functions associated with safety
detection system which	train D. Train A, B and C remain
discharges the gaseous agent will prevent damage to the	free from the damage.
safety-related equipment	
consistent with GDC-3.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 104 of 306)

Fire Zone: **FA2-206-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-206 Corridor Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 1F, 1MF Zone Designation: FA2-206-01 Corridor 804 9A-3, 9A-4 Fig: 3.34<u>0</u> Associated Safety Division(s) С Sect:

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		FA2-321-01
FA2-201-01	See Table 9A-3	FA2-308-03
		FA2-312-02
		FA2-314-01

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.

MIC-03-09-00015 MIC-03-09-00015

MIC-03-09-

00015

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible	2.6E+05
Loading:	

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
	3

Floor
Area
(ft ²)
(10)
1,600

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train C. Train A, B and D remain	
consistent with GDC-3.	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

3.1843

Area Designation: A-Spent Fuel Pit Pump Room Zone Designation: FA2-209-04 2F Eastside Corridor

Automatic smoke

Α

Fire Detection – Primary

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Manual Fire Alarm Pull Station

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3

Sect:

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

Associated Safety Division(s)

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

MIC-03-09-

00015

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 Zone Combustible Summary

Loading:

Anticipated Combustible Loading:

Maximum Anticipated Combustible

Btu/ft²

2.4E+04

2.9E+04

Floor
Area
(ft ²)
(-)
3,1 <mark>50</mark> 0

Floor
Area
(ft ²)
3,1 <mark>5</mark> 00
,

Fire S	uppression – Primary		Fire Suppression - Backup
Fire Hose Station		Por	table Fire Extinguisher
_			
Fire Suppression System Operate			act to Zone
		es	Suppression System Fails to Op.

Fire impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	A fire has the potential to		
suppressed fire in this room	damage safe-shutdown		
will minimize fire damage to	functions associated with safety		
the safety-related equipment	train A. Train B, C and D remain		
consistent with GDC-3.	free from the damage.		

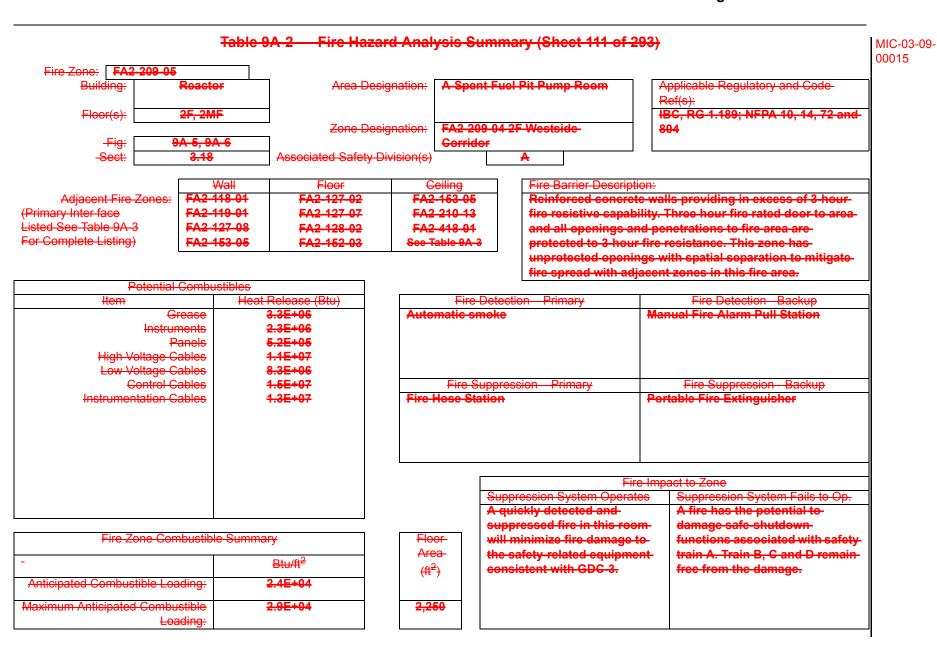


Table 9A-2 Fire Hazard Analysis Summary (Sheet 111 of 306)

Fire Zone: FA2-209-06

Building: Reactor

Floor(s): 3F

Fig: 9A-7

Area Designation: A-Spent Fuel Pit Pump Room

Zone Designation: FA2-209-06 3F Eastside Corridor

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fig: **9A-7** Sect: **3.4843**

Associated Safety Division(s)

Α

MIC-03-09-00015

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	
	<u> </u>	
Fire Suppression – Primary	Fire Suppression - Backup	
Fire Hose Station	Portable Fire Extinguisher	
	_	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4 <u>5</u> E+04
Maximum Anticipated Combustible	2.9 3.0E+04
Loading:	

Floor Area (ft ²)
2,000 <u>1,950</u>

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	
	_	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 112 of 306)

Fire Zone: **FA2-209-07** A-Spent Fuel Pit Pump Room Building: Reactor Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 3F Zone Designation: FA2-209-07 Piping Room 804 Fig: 9A-7 Associated Safety Division(s) Sect: 3.1843

MIC-03-09-00015

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 Compression Drives	Fire Cumpression Dealum	
Fire Suppression – Primary	Fire Suppression - Backup	
Fire Hose Station	Portable Fire Extinguisher	

Fire Impact to Zone

Suppression System Fails to Op.

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible	3.8E+04
Loading:	

	A quickly detected and	A fire has the potential to
	suppressed fire in this room	damage safe-shutdown
Floor	will minimize fire damage to	functions associated with safety
Area	the safety-related equipment	train A. Train B, C and D remain
(ft ²)	consistent with GDC-3.	free from the damage.
750		

Suppression System Operates

Tier 2 9A-431 Revision 3

Table 9A-2 Fire Hazard Analysis Summary (Sheet 113 of 306)

Fire Zone: **FA2-210-10** Building: Reactor Area Designation: FA2-210 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 1F to 3F Zone Designation: FA2-210-10 Truck Access 804 9A-3 to 9A-7 Fig: Sect: Associated Safety Division(s) 3.1844 N Fire Barrier Description: Adjacent Fire Zones: Reinforced concrete walls providing in excess of 3-hour

(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		FA2-210-22
FA2-209-06	See Table 9A-3	
FA2-210-13		

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

MIC-03-09-

00015

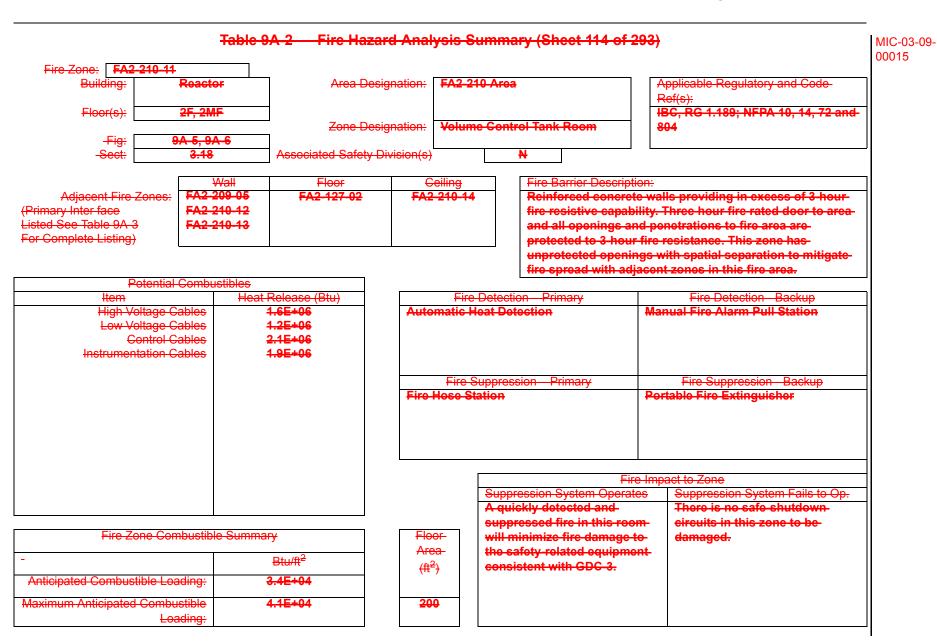
Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	7.7E+06 5.8E+06 1.0E+06 8.9E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

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 Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	There is no safe-shutdown
suppressed fire in this room	circuits in this zone to be
will minimize fire damage to	damaged.
the safety-related equipment	
consistent with GDC-3.	

Floor Area (ft^2) 1,450



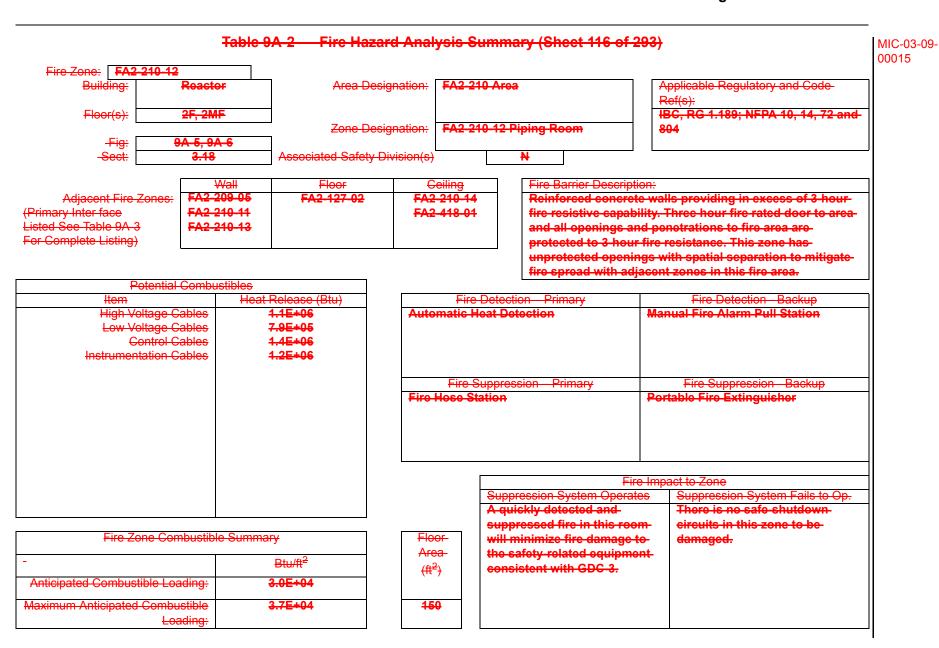


Table 9A-2 Fire Hazard Analysis Summary (Sheet 114 of 306)

Fire Zone: **FA2-210-13** Building: Reactor Floor(s): 2MF to Roof Fig: 9A-6 to 9A-9

3.1844

Area Designation: FA2-210 Area Zone Designation: Spent Fuel Handling Zone

N

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3

Sect:

For Complete Listing)

Wall	Floor	Ceiling
EAO 400 04	E 4 0 4 0 0 0 4	=40.4=4.00
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

Associated Safety Division(s)

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 Combu	ıstibles
ltem	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 Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3. <u>42</u> E+04

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

Floor Area (ft ²)	extinguished fire in t will minimize any po- damage to fuel or fue handling equipment.
10,1 <u>50</u> 0	

Suppression System Operates Suppression System Fails to Op. A guickly detected and There is no safe-shutdown this area circuits in this zone to be tential damaged. el

Fire Impact to Zone

MIC-03-09-00015

MIC-03-09-

00015

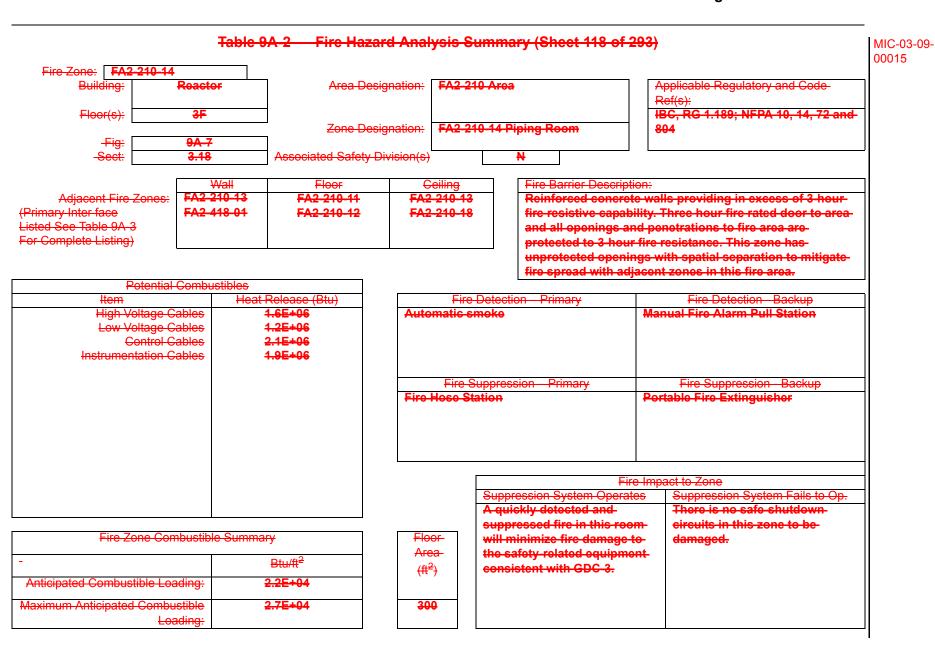


Table 9A-2 Fire Hazard Analysis Summary (Sheet 115 of 306)

Fire Zone: **FA2-210-15** Building: Reactor Area Designation: FA2-210 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 4F Zone Designation: FA2-210-15 4F Eastside Corridor 804 Fig: 9A-8 Sect: 3.1844 Associated Safety Division(s)

MIC-03-09-00015

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 Combu	ıstibles
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
F: 0	F' O DI
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

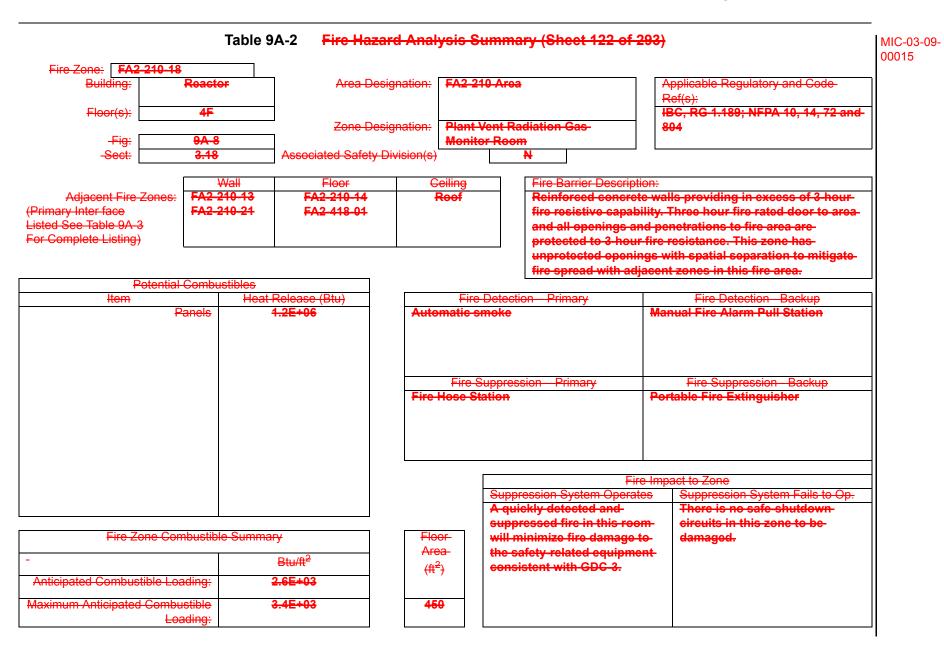
Fire Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.8E+04

Floor Area (ft ²)
1,750

	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	There is no safe-shutdown
suppressed fire in this room	circuits in this zone to be
will minimize fire damage to	damaged.
the safety-related equipment	
consistent with GDC-3.	

Fire Zone: FA2-210-16	1						
	Reactor	Area Des	ignation:	FA2-210	-Aroa		Applicable Regulatory and Code- Ref(s):
Floor(s):	4 F					4	BC, RG 1.189; NFPA 10, 14, 72 an
-Fig:	9A-8	Zone Des	ignation:	C/V Rad Room	liation Gas Monit e	r {	304
Sect:	3.18	Associated Safety [Division(s)		N		
	\A/=!!	-		N = 111	Fine Demine	December	
Adjacent Fire Zones:	Wall FA2-210-17	Floor FA2-411-01		Ceiling 2-210-21		Description:	Ills providing in excess of 3-hour
mary Inter face	FA2-210-11	FA2-417-01	TAL	-210-21			Three hour fire rated door to area
Complete Listing)					protected unprotected	to 3 hour fire od openings v	enetrations to fire area are- resistance. This zone has- with spatial separation to mitigate at zones in this fire area.
	Combustibles						
ltom	Heat	Polosco (Rtu)		Eiro D	etection Primary		Fire Detection Rackup
H tem Pa	Heat	Release (Btu) 1.2E+06	Auto	Fire D omatic sm	etection Primary oke	Ma	Fire Detection Backup nual Fire Alarm Pull Station
		\		omatic sm	eke ppression Primar	y	
		\		ematic sm	eke ppression Primar	y Pe	Fire Suppression—Backup rtable Fire Extinguisher
		\		Fire Su Hose Stat	eke ppression Primar	y Pe	Fire Suppression Backup rtable Fire Extinguisher
		\		Fire Su Hose Stat	ppression Primar	Pe Fire Impm Operates	Fire Suppression—Backup rtable Fire Extinguisher
Pe	anels	4.2E+06		Fire Su Hose Stat	ppression Primarion Suppression System A quickly detected suppressed fire in	Fire Importance of and this room	Fire Suppression Backup rtable Fire Extinguisher pact to Zone Suppression System Fails to Op.
Pé		4.2E+06	Fire	Fire Sul Hose Stat	ppression Primarion Suppression System A quickly detector suppressed fire in will minimize fire	Fire Imp m Operates d and this room- damage to	Fire Suppression Backup rtable Fire Extinguisher pact to Zone Suppression System Fails to Op. There is no safe-shutdown
Pé	anels	4.2E+06	Fire	Fire Sul Hose Stat	ppression Primarion Suppression System A quickly detected suppressed fire in	Fire Imp m Operates d and this room damage to equipment	Fire Suppression Backup rtable Fire Extinguisher pact to Zone Suppression System Fails to Op. There is no safe shutdown circuits in this zone to be
Pé	bustible Summa	4.2E+06	Fire	Fire Sul Hose Stat	ppression Primarion Suppression System A quickly detected suppressed fire in will minimize fire the safety related	Fire Imp m Operates d and this room damage to equipment	Fire Suppression Backup rtable Fire Extinguisher pact to Zone Suppression System Fails to Op. There is no safe shutdown circuits in this zone to be

		9A-2 Fire Haza	,	io Gaiiiii	ary (Sheet 121 of	- 200)
Fire Zone: FA2-210-17						
Building: 4	Reactor	Area Des	ignation: F	A 2-210 Aro	a	Applicable Regulatory and Code- Ref(s):
Floor(s):	4 F					IBC, RG 1.189; NFPA 10, 14, 72 and
Fig. [04.0	Zone Des	ignation: P	ass Sampli	ng Rack Room	804
-Fig: - Sect:	9A-8 3.18	Associated Safety E	Division(s)		N	
0001.	0.10	_ /\osociated calcty L) () () () () () () () () () (N	
[Wall	Floor	Ceili		Fire Barrier Descrip	
Adjacent Fire Zones:	FA2-101-25	FA2-411-01	FA2-21	10-21		ete walls providing in excess of 3-hour
Primary Inter face isted See Table 9A-3	FA2-210-16 FA2-210-21					bility. Three hour fire rated door to area
or Complete Listing)	FA2-210-21 FA2-506-01					and penetrations to fire area are ur fire resistance. This zone has
or complete Listing)	FA2-511-01					ings with spatial separation to mitigate
L		.1				djacent zones in this fire area.
Potential (Combustibles					-
ltem Instrum		Release (Btu)	_	Fire Detec	ion Primary	Fire Detection Backup Manual Fire Alarm Pull Station
	anels	4.0E+04				
				Fire Suppre	esion Primary	Fire Suppression Backup
			Fire Ho	se Station		Portable Fire Extinguisher
						ire Impact to Zone
				Supp	ression System Opera	ates Suppression System Fails to Op.
				A qu	ression System Opera	Suppression System Fails to Op. There is no safe-shutdown
Fire Zone Com	hustible Summ:	3FV	Elpar	A qu	ression System Opera ickly detected and ressed fire in this re	Suppression System Fails to Op. There is no safe-shutdown- circuits in this zone to be
Fire Zone Com	bustible Summe		Floor- Area-	A qu supp will-	ression System Opera ickly detected and- ressed fire in this ro ninimize fire damage	Suppression System Fails to Op. There is no safe shutdown om circuits in this zone to be damaged.
Fire Zone Com	bustible Summ a	ary Btu/ft ²	Area	A qu supp will the c	ression System Opera ickly detected and ressed fire in this re	Suppression System Fails to Op. There is no safe shutdown om circuits in this zone to be damaged.
Fire Zone Gom Anticipated Combustible Load				A qu supp will the c	ression System Opera ickly detected and- pressed fire in this re minimize fire damage afety related equipm	Suppression System Fails to Op. There is no safe shutdown om circuits in this zone to be damaged.
Anticipated Combustible Load	ding:	Btu/ft ²	Area	A qu supp will the c	ression System Opera ickly detected and- pressed fire in this re minimize fire damage afety related equipm	Suppression System Fails to Op. There is no safe shutdown om circuits in this zone to be damaged.



Anticipated Combustible Loading:

Maximum Anticipated Combustible

Loading:

Fire Zone: FA2-210-19 Building:	Reactor	Area Des	ignation: FA2	-210 Area		oplicable Regulatory and Code ef(s):
Floor(s):	4F				IB	C, RG 1.189; NFPA 10, 14, 72 and
Fig:	9A-8	Zone Des	ignation: Fue	Inspection Room	80	04
Sect:	3. 18 44	Associated Safety I	Division(s)	N		
	Wall	Floor	Ceiling	Fire Barrier Desc		
Adjacent Fire Zones: imary Inter face ted See Table 9A-3 Complete Listing)	FA2-101-25 FA2-101-26 FA2-210-13 FA2-210-21	FA2-506-01	Roof	fire resistive ca and all opening protected to 3-h	pability. T s and pen our fire re	s providing in excess of 3-hour Three hour fire rated door to area netrations to fire area are esistance. This zone has
	FA2-506-01					th spatial separation to mitigate zones in this fire area.
Potential Item	Combustibles	Release (Btu)		re Detection – Primary		Fire Detection - Backup
Instrur		9.6E+05	Automatic		Man	ual Fire Alarm Pull Station
P	pe Oil anels Rack	2.3E+05 2.1E+06 2.6E+05				
			Fire	Suppression – Primary		Fire Suppression - Backup
			Fire Hose	Station	Port	able Fire Extinguisher
				Suppression System Ope		act to Zone Suppression System Fails to Op.
				A quickly detected and suppressed fire in this		There is no safe-shutdown circuits in this zone to be
Fire Zone Con	nbustible Summa	ary	Floor Area	will minimize fire dama the safety-related equip	ge to	damaged.

Tier 2 9A-441 Revision 3

 (ft^2)

550

consistent with GDC-3.

Btu/ft²

6.4E+03

7.9E+03

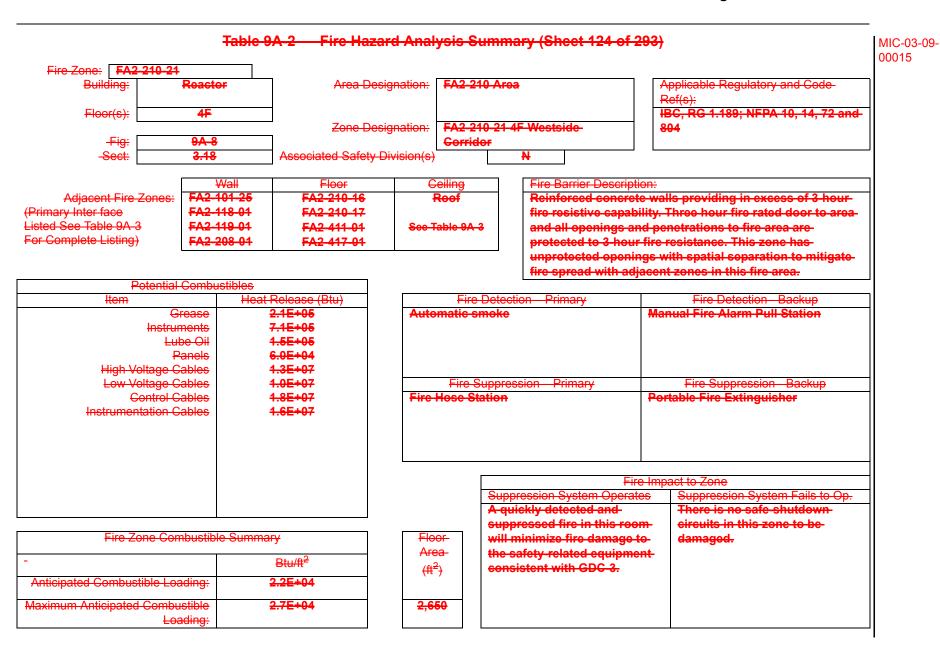


	Table 9	A-2 Fire Haz	ard Analysis S	ummary (Sheet 117 of	<u>306)</u>	MIC-03-09-
Fire Zone: FA2-210-22 Building: Floor(s):	Reactor 3F	Area De:	signation: FA2-21	10 Area	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and	
Fig: Sect:	9A-7 3.44	Zone De: Associated Safety	signation: Free S Division(s)	pace A	804	
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall FA2-209-06 FA2-210-10 FA2-210-13	Floor FA2-209-04 FA2-210-10	<u>Ceilling</u> <u>FA2-210-13</u>	fire resistive capal and all openings a protected to 3-hou unprotected openi	tion: te walls providing in excess of 3-hour collity. Three hour fire rated door to area and penetrations to fire area are ar fire resistance. This zone has angs with spatial separation to mitigate aliacent zones in this fire area.	
<u>Potential</u> <u>Item</u> <u>Transien</u>		Release (Btu) 9.3E+04	Automatic s	<u>Detection – Primary</u> moke	Fire Detection - Backup Manual Fire Alarm Pull Station	
			Fire S	uppression – Primary ation	Fire Suppression - Backup Portable Fire Extinguisher	
				Suppression System Opera A quickly detected and	There is no safe-shutdown	
Fire Zone Cor	nbustible Summa	<u>ry</u>	<u>Floor</u> Area	suppressed fire in this roo will minimize fire damage the safety-related equipme	to damaged.	
- Anticipated Combustible Loa	ading:	Btu/ft ²	(ft ²)	consistent with GDC-3.	GIIL	
Maximum Anticipated Combu	istible ading:	1.9E+02	500			

Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 118 of 306) Fire Zone: **FA2-211-01** Building: Reactor Area Designation: FA2-211 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-211-01 Piping Penetration 804 Fig: 9A-2 to 9A-4 Area MIC-03-09-Sect: 3.1845 Associated Safety Division(s) Α 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA2-101-01 FA2-123-02 FA2-153-05 Walls of reinforced concrete or other material providing a 00015 (Primary Inter face FA2-154-04 FA2-154-06 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA2-209-03 FA2-212-02 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA2-212-01 all openings and penetrations into the room are rated to FA2-212-02 provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item High Voltage Cables Manual Fire Alarm Pull Station 2.6E+06 **Automatic smoke** Low Voltage Cables 2.0E+06 3.5E+06 **Control Cables** Instrumentation Cables 3.1E+04 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 There is no safe-shutdown suppressed fire in this room circuits in this zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. Area the safety-related equipment Btu/ft² (ft^2) consistent with GDC-3. MIC-03-09-Anticipated Combustible Loading: 2.58E+04 00015 Maximum Anticipated Combustible 3.04E+04 4<u>50</u>0

Table 9A-2 Fire Hazard Analysis Summary (Sheet 119 of 306)

Fire Zone: **FA2-212-01** Building: Reactor Area Designation: FA2-212 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 1F FA2-212-01 Piping Room Zone Designation: 804 9A-3 Fig: 3.1846 Associated Safety Division(s) Sect: Α

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 Combu	ıstibles
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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2. 2 <u>5</u> E+04 <u>5</u>	
Maximum Anticipated Combustible Loading:	2.7 3.0E+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	There is no safe-shutdown		
suppressed fire in this room	circuits in this zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment			
consistent with GDC-3.			

MIC-03-09-00015

MIC-03-09-

00015

Tier 2 9A-445 Revision 3

Floor Area (ft²)

500450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 120 of 306)

Fire Zone: **FA2-212-02** Building: Reactor Area Designation: FA2-212 Area Applicable Regulatory and Code Ref(s): 1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-212-02 Piping Room 804 Fig: 9A-4 3.1846 Associated Safety Division(s) Sect:

MIC-03-09-00015

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 Combu	ıstibles
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. 1 2E+04
Maximum Anticipated Combustible Loading:	2. <u>56</u> E+04

Floor	
Area	
(ft^2)	
1,3 <u>50</u> 0	
1,000	

Fire Imp	act 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	There is no safe-shutdown circuits in this zone to be damaged.
consistent with GDC-3.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 121 of 306) MIC-03-09-00015 Fire Zone: **FA2-213-01** FA2-213 Corridor Applicable Regulatory and Code Building: Reactor Area Designation: IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 2F, 2MF Zone Designation: FA2-213-01 Corridor 804 Fig: 9A-5, 6 3.47 Associated Safety Division(s) Sect: <u>A</u> Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-118-01 FA2-127-02 FA2-153-05 Walls of reinforced concrete or other material providing a (Primary Inter face FA2-119-01 FA2-127-07 FA2-210-13 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA2-127-08 of this room. The door to the room is 3-hour fire rated and FA2-128-02 FA2-418-01 For Complete Listing) FA2-153-05 all openings and penetrations into the room are rated to FA2-153-05 See Table 9A-3 provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Grease 3.3E+06 Automatic smoke Manual Fire Alarm Pull Station Instruments 2.3E+06 5.2E+05 **Panels High Voltage Cables** 1.1E+07 Low Voltage Cables 8.3E+06 **Control Cables** 1.5E+07 Fire Suppression – Primary Fire Suppression - Backup Instrumentation Cables 1.3E+07 Fire Hose Station Portable Fire Extinguisher Fire Impact to Zone Suppression System Operates Suppression System Fails to Op. There is no safe-shutdown A quickly detected and suppressed fire in this room circuit in this fire zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. <u>Area</u> the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 2.4E+04 Maximum Anticipated Combustible 2.9E+04 2,200 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 122 of 306) MIC-03-09-00015 Fire Zone: **FA2-214-01** FA2-214 Area Applicable Regulatory and Code Building: Reactor Area Designation: IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 2F, 2MF Zone Designation: **Volume Control Tank Room** 804 Fig: 9A-5, 6 3.48 Associated Safety Division(s) Sect: N Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-210-13 FA2-127-02 FA2-214-03 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-213-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA2-214-02 and all openings and penetrations to fire area are For Complete Listing) 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 Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup <u>Item</u> High Voltage Cables 1.6E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 1.2E+06 **Control Cables** 2.1E+06 Instrumentation Cables 1.9E+06 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 There is no safe-shutdown suppressed fire in this room circuit in this fire zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. <u>Area</u> the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 3.4E+04 Maximum Anticipated Combustible 4.1E+04 200 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 123 of 306) MIC-03-09-00015 Fire Zone: **FA2-214-02** FA2-214 Area Applicable Regulatory and Code Building: Reactor Area Designation: IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 2F, 2MF Zone Designation: FA2-214-02 Piping Room 804 Fig: 9A-5, 6 3.48 Associated Safety Division(s) Sect: N Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-210-03 FA2-127-02 FA2-214-03 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-213-01 FA2-418-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA2-214-01 and all openings and penetrations to fire area are For Complete Listing) 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 Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup <u>Item</u> High Voltage Cables 1.1E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 7.9E+05 **Control Cables** 1.4E+06 Instrumentation Cables 1.2E+06 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 There is no safe-shutdown suppressed fire in this room circuit in this fire zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. <u>Area</u> the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 3.0E+04 Maximum Anticipated Combustible 3.7E+04 150 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 124 of 306) MIC-03-09-00015 Fire Zone: **FA2-214-03** FA2-214 Area Applicable Regulatory and Code Building: Reactor Area Designation: IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): <u>3F</u> Zone Designation: FA2-214-03 Piping Room 804 Fig: 9A-7 3.48 Associated Safety Division(s) Sect: N Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-210-13 FA2-214-01 FA2-210-13 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-418-01 FA2-214-02 FA2-214-06 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 and all openings and penetrations to fire area are For Complete Listing) 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 Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup <u>Item</u> High Voltage Cables 1.6E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 1.2E+06 **Control Cables** 2.1E+06 Instrumentation Cables 1.9E+06 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 There is no safe-shutdown suppressed fire in this room circuit in this fire zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. <u>Area</u> the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 2.2E+04 Maximum Anticipated Combustible 2.7E+04 300 Loading:

	Table 9	A-2 <u>Fire Haza</u>	ard Analysis S	ummary (Sheet 125 of	306)	MIC-03-0
Fire Zone: FA2-214-0 Building:	Neactor	Area Des	signation: FA2-2	14 Area	Applicable Regulatory and Code Ref(s):	
Floor(s):	<u>4F</u>	Zone Des	signation: Pass \$	Sampling Rack Room	IBC, RG 1.189; NFPA 10, 14, 72 and 804	
<u>Fig:</u> <u>Sect:</u>	9A-8 3.48	Associated Safety I	Division(s)	<u>N</u>		
Adjacent Fire Zones (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2-214-05 FA2-214-07 FA2-506-01 FA2-511-01	Floor FA2-411-01	<u>Ceiling</u> <u>FA2-214-07</u>	fire resistive capak and all openings a protected to 3-hou unprotected openi	tion: te walls providing in excess of 3-hour bility. Three hour fire rated door to area nd penetrations to fire area are r fire resistance. This zone has ngs with spatial separation to mitigate liacent zones in this fire area.	
<u>Potenti</u> Item	al Combustibles Heat	Release (Btu)	Fire	Detection – Primary	Fire Detection - Backup	╗
	<u>Panels</u>	1.2E+06	Automatic s	<u>smoke</u>	Manual Fire Alarm Pull Station	
			Fire Hose St	Suppression – Primary tation	Fire Suppression - Backup Portable Fire Extinguisher	
				Suppression System Operar A quickly detected and	re Impact to Zone tes Suppression System Fails to Op. There is no safe-shutdown	
Fire Zone Co	ombustible Summa	ary	<u>Floor</u> Area	suppressed fire in this roo will minimize fire damage the safety-related equipme	circuit in this fire zone to be damaged.	
- Anticipated Combustible L	oading:	Btu/ft ² 7.9E+03	(ft ²)	consistent with GDC-3.	<u> </u>	
Maximum Anticipated Com		1.0E+04	150			

	Table 9	A-2 <u>Fire Hazar</u>	rd Analysis S	ummary (Sheet 126 of 3	306)	MIC-03-09-
Fire Zone: FA2-214-09 Building:	Reactor	Area Desig	gnation: FA2-21	14 Area	Applicable Regulatory and Code Ref(s):	
Floor(s): Fig:	<u>4F</u> 9A-8	Zone Desig		adiation Gas Monitor	IBC, RG 1.189; NFPA 10, 14, 72 and 804	
Sect:	3.48	Associated Safety Di		<u>N</u>		_
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2-214-07 FA2-511-01	Floor FA2-411-01 FA2-417-01	<u>Ceiling</u> <u>FA2-214-07</u>	fire resistive capab and all openings ar protected to 3-hour unprotected opening	te walls providing in excess of 3-hour ility. Three hour fire rated door to area and penetrations to fire area are rire resistance. This zone has ags with spatial separation to mitigate facent zones in this fire area.	
<u>Item</u> <u>Instru</u>	<u>iments</u>	Release (Btu) 8.9E+05 4.0E+04	Automatic s	<u>Detection – Primary</u> <u>moke</u>	Fire Detection - Backup Manual Fire Alarm Pull Station	
			Fire S	Suppression – Primary ation	Fire Suppression - Backup Portable Fire Extinguisher	
				Suppression System Operat A quickly detected and suppressed fire in this roo	There is no safe-shutdown	
Fire Zone Co	mbustible Summa	ry	<u>Floor</u> Area	will minimize fire damage to the safety-related equipme	damaged.	
- Anticipated Combustible Lo	pading:	Btu/ft ² 1.7E+03	(ft ²)	consistent with GDC-3.	ent.	
Maximum Anticipated Comb		2.2E+03	<u>550</u>			

					MIC-03-09-	
Fire Zone: FA2-214-	06	1				00015
Building:	Reactor	Δrea De	esignation: FA2-2	14 Area	Applicable Regulatory and Code	-
<u>Ballallig.</u>	Reactor	Alea De	Signation.	14 Alea	Ref(s):	
Floor(a):	45				IBC, RG 1.189; NFPA 10, 14, 72 and	-1
Floor(s):	<u>4F</u>	Zana Da	oignotion: Diant	Vent Rediction Cos		
Fig. F	0.4.0	Zone De		Vent Radiation Gas	804	
Fig:	9A-8	A i - t O - f - t -		or Room		_
Sect:	<u>3.48</u>	Associated Safety	Division(s)	<u>N</u>		
	Wall	Floor	Ceiling	Fire Barrier Descrip	tion:	7
Adjacent Fire Zone	s: FA2-210-13		Roof		te walls providing in excess of 3-hour	1
(Primary Inter face	FA2-214-07				pility. Three hour fire rated door to area	
Listed See Table 9A-3					nd penetrations to fire area are	
For Complete Listing)					r fire resistance. This zone has	
<u>. e. eempiete nemigj</u>		I			ngs with spatial separation to mitigate	
					liacent zones in this fire area.	
Detent	tial Combustibles			iire spread with ad	<u>ijacent zones in this fire area.</u>	
		eat Release (Btu)	Fire	Detection Drimon	Fire Detection Backup	¬I
<u>Item</u>	Panels	1.2E+06	Automatic s	Detection – Primary	Fire Detection - Backup Manual Fire Alarm Pull Station	4
Automatic smoke indirect the Automatic smoke						
				Suppression – Primary	Fire Suppression - Backup	
			Fire Hose St	<u>tation</u>	Portable Fire Extinguisher	
						_
				Fi	re Impact to Zone	-
				Suppression System Opera		-
				A quickly detected and	There is no safe-shutdown	-
				suppressed fire in this roo		
Fire Zone C	Combustible Sum	nmary	Floor	will minimize fire damage		
1 110 ZONC C	ZOTINGGUIDIC GUII	iiii y	Area	the safety-related equipme		
-		Btu/ft ²	(ft ²)	consistent with GDC-3.	ent.	
Anticipated Combustible I	Loading:	3.0E+03	*** *			
Maximum Anticipated Com	nbustible Loading:	3.8E+03	400			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 128 of 306) MIC-03-09-00015 Fire Zone: **FA2-214-07** FA2-214 Area Applicable Regulatory and Code Building: Reactor Area Designation: IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 4F Zone Designation: FA2-214-07 Westside Corridor 804 Fig: 9A-8 3.48 Associated Safety Division(s) Sect: N Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA1-101-25 FA2-127-08 Roof Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-118-01 FA2-214-04 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA2-119-01 and all openings and penetrations to fire area are FA2-214-05 See Table 9A-3 For Complete Listing) FA2-208-01 protected to 3-hour fire resistance. This zone has FA2-411-01 unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup <u>Item</u> Grease 2.1E+05 Automatic smoke Manual Fire Alarm Pull Station Instruments 7.1E+05 Lube Oil 1.5E+05 6.0E+04 **Panels High Voltage Cables** 1.3E+07 Low Voltage Cables 1.0E+07 Fire Suppression – Primary Fire Suppression - Backup 1.8E+07 **Control Cables** Fire Hose Station Portable Fire Extinguisher Instrumentation Cables 1.6E+07 Fire Impact to Zone Suppression System Operates Suppression System Fails to Op. A quickly detected and There is no safe-shutdown suppressed fire in this room circuit in this fire zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. <u>Area</u> the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 2.2E+04 Maximum Anticipated Combustible 2.7E+04 2,600 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 129 of 306)

Fire Zone: **FA2-302-01** Building: Reactor Area Designation: A-Class 1E UPS Room Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: A-Class 1E UPS Room 804 9A-5, 9A-6 Fig: Sect: 3.3849 Associated Safety Division(s) Α

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.

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MIC-03-09-

00015

Potential Combu	ıstibles
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 Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	3.2 6.4E+04
Maximum Anticipated Combustible Loading:	3.9 7.7E+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

Floor Area
(ft ²)
<u>42</u> 00

F' 1			
Fire impa	act to Zone		
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	A fire has the potential to		
suppressed fire in this room	damage safe-shutdown		
will minimize fire damage to	functions associated with safety		
the safety-related equipment	train A. Train B, C and D remain		
consistent with GDC-3.	free from the damage.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 130 of 306)

Fire Zone: **FA2-303-01** Building: Reactor Area Designation: **B-Class 1E UPS Room** Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **B-Class 1E UPS Room** 804 Fig: 9A-5, 9A-6 Sect: 3.3950 Associated Safety Division(s) В

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-302-01	FA2-201-01	FA2-401-01
FA2-307-01	FA2-202-01	FA2-424-01
FA2-307-02	FA2-203-01	
FA2-320-01	FA2-307-01	See Table 9A-3
	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.

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00015

MIC-03-09-

Potential Combustibles	
Item	Heat Release (Btu)
Panels High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	3.8E+06 1.9E+06 1.4E+06 2.5E+06 2.2E+06

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.3 5.8E+04
Maximum Anticipated Combustible Loading:	<u>47</u> .0E+04

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Portable Fire Extinguisher

	:past to		
	Suppression System Operates	Suppression System Fails to Op.	
	A quickly detected and	A fire has the potential to	
	suppressed fire in this room	damage safe-shutdown	
Floor	will minimize fire damage to	functions associated with safety	
Area	the safety-related equipment	train B. Train A, C and D remain	
(ft ²)	consistent with GDC-3.	free from the damage.	
250200			
350 200			

Fire Impact to Zone

Table 9A-2 Fire Hazard Analysis Summary (Sheet 131 of 306)

Fire Zone: **FA2-304-01** Building: Reactor Area Designation: A-Class 1E I&C Room Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: A-Class 1E I&C Room 804 9A-5, 9A-6 Fig: 3.4051 Associated Safety Division(s) Sect:

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-302-01	FA2-304-02	FA2-30 7 2-01
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.

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00015

MIC-03-09-

MIC-03-09-00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.5 2.7E+04
Maximum Anticipated Combustible	4 .2 3.3E+04
Loading:	

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Portable Fire Extinguisher

Floor Area (ft ²)
900 1,150

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this space which is possible	damage safe-shutdown	
due to the early smoke	functions associated with safety	
detection system which	train A. Train B, C and D remain	
discharges the gaseous agent	free from the damage.	
will prevent damage to the		
safety-related equipment		
consistent with GDC-3.		

Fire Detection - Backup

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): 2F IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): Zone Designation: A-Class 1E I&C Room Raised and 804 9A-5 Fig: Flood 3.40<u>51</u> Sect: Associated Safety Division(s) Α

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-302-01	FA2-202-01	FA2-304-01
FA2-307-01	FA2-203-01	
FA2-307-02	See Table 9A 3	
FA2-308-03		

Fire Barrier Description:

Fire Detection – Primary

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.

MIC-03-09-

MIC-03-09-

00015

Potential Combustibles		
Item		Heat Release (Btu)
	Cable	2.8E+08
	Sheet	7.6E+05

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.1 2.4E+05
Maximum Anticipated Combustible	3.7 2.9E+05
Loading:	

Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Portable Fire Extinguisher

Floor Area (ft ²)
900 1.150

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly suppressed fire in	A fire has the potential to		
this space which is possible	damage safe-shutdown		
due to the early smoke	functions associated with safety		
detection system which	train A. Train B, C and D remain		
discharges the gaseous agent	free from the damage.		
will prevent damage to the			
safety-related equipment			
consistent with GDC-3			

Fire Detection - Backup

Table 9A-2 Fire Hazard Analysis Summary (Sheet 133 of 306)

Fire Zone: **FA2-307-01** Building: Reactor Area Designation: **B-Class 1E I&C Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 2F, 2MF Zone Designation: **B-Class 1E I&C Room** and 804 Fig: 9A-5, 9A-6 Associated Safety Division(s) Sect: 3.41<u>52</u> В

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-302-01	FA2-203-01	FA2-303-01
FA2-303-01	FA2-304-01	FA2-401-01
FA2-304-01	FA2-307-02	FA2-402-01
FA2-304-02	FA2-308-02	
FA2-308-02		See Table 9A-3

Fire Barrier Description:

Fire Detection - Primary

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

MIC-03-09-

00015

Potential Combustibles		
Item	Heat Release (Btu)	
Panels Instruments High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	9.9E+06 1.8E+05 4.0E+06 3.0E+06 5.3E+06 4.6E+06	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.6 2.8E+04
Maximum Anticipated Combustible	4 .3 3.4E+04
Loading:	

Air Aspirating Very Early Smoke Detection Alarm	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Portable Fire Extinguisher

Floor
Area
(ft ²)
(10)
7 950

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this space which is possible	damage safe-shutdown	
due to the early smoke	functions associated with safety	
detection system which	train B. Train A, C and D remain	
discharges the gaseous agent	free from the damage.	
will prevent damage to the		
safety-related equipment		
consistent with GDC-3.		

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): 2F IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): Zone Designation: B-Class 1E I&C Room Raised and 804 9A-5 Fig: Flood Sect: 3.4152 Associated Safety Division(s) В Fire Barrier Description:

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-303-01	FA2-202-01	FA2-307-01
FA2-304-02	FA2-20 <mark>2</mark> 3-01	
FA2-308-03	_	
FA2-320-01		

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.

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Potential Combustibles		
Item		Heat Release (Btu)
	Cable	2.8E+08
	Sheet	7.6E+05

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.7 2.9E+04 <u>5</u>
Maximum Anticipated Combustible Loading:	<u>4.43.5</u> E+04 <u>5</u>

Floor Area (ft ²)
7 <u>9</u> 50

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke	Manual Fire Alarm Pull Station
Detection Alarm	
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Portable Fire Extinguisher
	-

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in	A fire has the potential to
this space which is possible	damage safe-shutdown
due to the early smoke	functions associated with safety
detection system which	train B. Train A, C and D remain
discharges the gaseous agent	free from the damage.
will prevent damage to the	
safety-related equipment	
consistent with GDC-3.	
1	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 135 of 306)

Fire Zone: **FA2-308-01** Building: Reactor Area Designation: Main Control Room Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): Zone Designation: Main Control Room and 804 9A-5, 9A-6 Fig: 3.4253 Associated Safety Division(s) Sect: A, B, C, D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-308-02	FA2-308-03	FA2-3 12 09-01
FA2-309-01		FA2-406-01
FA2-312-01		FA2-413-01
FA2-314-01		
FA2-321-01		
EAG 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.

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Potential Combustibles	
Item	Heat Release (Btu)
Console and Panels, etc	1.6E+07
Instruments	2.4E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.7E+03
Maximum Anticipated Combustible Loading:	9.3E+03

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	There is no backup detection system
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	The fire in this zone has the
suppressed fire in this room	potential to damage the safe-
will minimize fire damage to	shutdown functions of 4 safety
the safety-related equipment	trains.
consistent with GDC-3.	In this fire, Remote Shutdown
	Console will be available.

Floor Area (ft²)

2,350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 136 of 306) Fire Zone: **FA2-308-02** Building: Reactor Area Designation: **Main Control Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): 2F, 2MF Zone Designation: Staff Room and 804 Fig: 9A-5, 9A-6 MIC-03-09-Associated Safety Division(s) Sect: 3.4253 A, B, C, D 00015 Wall Ceiling Fire Barrier Description: Floor MIC-03-09-Reinforced concrete walls providing in excess of 3-hour Adjacent Fire Zones: FA2-303-01 FA2-308-03 FA2-3074-01 00015 (Primary Inter face FA2-304-01 FA2-405-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA2-307-01 and all openings and penetrations to fire area are FA2-412-01 For Complete Listing) FA2-308-01 protected to 3-hour fire resistance. This zone has FA2-320-01 unprotected openings with spatial separation to mitigate MIC-03-09-FA6-101-15 fire spread with adjacent zones in this fire area. 00015 Fire Detection - Primary Fire Detection - Backup

Potential Combustibles		
Item		Heat Release (Btu)
	Instruments	2.6E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.1E+02
Maximum Anticipated Combustible Loading:	1.7E+02

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 Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire by	The fire in this zone has the
either personnel or by the	potential to damage the
water mist system will serve to	safeshutdown functions of 4
minimize damage from a fire	safety trains.
and the affect on plant	In this fire, Remote Shutdown
operations.	Console will be available.

Floor

Area (ft^2)

2,350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 137 of 306)

Fire Zone: **FA2-308-03** Building: Reactor Area Designation: Main Control Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 15, 14, 72 and Floor(s): 2F Zone Designation: Main Control Room Raised 804 9A-5 Fig: Floor 3.4253 A, B, C, D Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-303-01	FA2-201-01	FA2-308-01
FA2-304-02	FA2-202-01	FA2-308-02
FA2-307-01	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.

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Potential Combustibles	
Item	Heat Release (Btu)
Cable	
Sheet	7.6E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.9E+04
Maximum Anticipated Combustible	7.0E+04
Loading:	

Floor
Area
(ft ²)
(11)
4,700

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke	Manual Fire Alarm Pull Station
Detection Alarm	
Fig. 0	Fin O Bull
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	The fire in this zone has the	
this space which is possible	potential to damage the safe-	
due to the early smoke	shutdown functions of 4 safety	
detection system which	trains.	
discharges the gaseous agent	In this fire, Remote Shutdown	
will prevent damage to the	Console will be available.	
safety-related equipment		
consistent with GDC-3.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 138 of 306)

Fire Zone: **FA2-309-01** Building: Reactor Area Designation: D-Class 1E I&C Room Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 14, 72, 804 Floor(s): Zone Designation: D-Class 1E I&C Room and 2001 Fig: 9A-5, 9A-6 Associated Safety Division(s) Sect: 3.43<u>54</u> D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-308-01	FA2-308-01	FA2-31 2 3-01
FA2-312-01	FA2-309-02	FA2-404-01
FA2-313-01		
FA6-101-15		
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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.5 2.7E+04
Maximum Anticipated Combustible	4 .2 3.3E+04 <u>3</u>
Loading:	

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Fire Hose Station

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this space which is possible	damage safe-shutdown	
due to the early smoke	functions associated with safety	
detection system which	train D. Train A, B and C remain	
discharges the gaseous agent	free from the damage.	
will prevent damage to the		
safety-related equipment		
consistent with GDC-3.		

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Floor

Area (ft²)

900 1,150

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): Floor(s): 2F IBC, RG 1.189; NFPA 14, 72, 804 Zone Designation: D-Class 1E I&C Room Raised and 2001 Fig: 9A-5 Floor MIC-03-09-Sect: 3.4354 Associated Safety Division(s) D 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA2-308-01 FA2-204-01 FA2-309-01 The floor and walls of this zone are of reinforced concrete 00015 (Primary Inter face FA2-312-01 FA2-205-01 or other materials which provide at least 3-hour fire Listed See Table 9A-3 FA2-312-02 resistive capability. The ceiling (floor of I&C room) is MIC-03-09-For Complete Listing) FA2-313-01 substantial metal or floor panel which is not fire rated. All 00015 FA6-101-15 penetrations into the zone from outside the area are protected for 3-hour. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item Manual Fire Alarm Pull Station Air Aspirating Very Early Smoke **Detection Alarm** Fire Suppression - Primary Fire Suppression - Backup Clean Gaseous Agent Fire Hose Station

Cable Sheet	2.8E+08 7.6E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.1 2.4E+05
Maximum Anticipated Combustible Loading:	3.7 2.9E+05

Floor Area (ft^2) 900 1,150

Fire Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly suppressed fire in	A fire has the potential to
this space which is possible	damage safe-shutdown
due to the early smoke	functions associated with safety
detection system which	train D. Train A, B and C remain
discharges the gaseous agent	free from the damage.
will prevent damage to the	
safety-related equipment	

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consistent with GDC-3.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 140 of 306)

Fire Zone: **FA2-312-01** Building: Reactor Area Designation: C-Class 1E I&C Room Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): C-Class 1E I&C Room Zone Designation: and 804 Fig: 9A-5, 9A-6 Sect: Associated Safety Division(s) С 3.44<u>55</u>

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-308-01	FA2-20 <mark>45</mark> -01	FA2-313-01
FA2 308 03	FA2-308-01	FA2-314-01
FA2-309-01	FA2-309-01	FA2-403-01
FA2-309-02	FA2-312-02	FA2-404-01
FA2-313-01		
FA2-314-01		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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.6 2.9E+04
Maximum Anticipated Combustible Loading:	4.3 3.4E+04

Fire Detection – Primary	Fire Detection - Backup
Air Aspirating Very Early Smoke	Manual Fire Alarm Pull Station
Detection Alarm	
Fire Suppression – Primary	Fire Suppression - Backup
Clean Gaseous Agent	Fire Hose Station

Floor Area (ft ²)	_
7 950	

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this space which is possible	damage safe-shutdown	
due to the early smoke	functions associated with safety	
detection system which	train C. Train A, B and D remain	
discharges the gaseous agent	free from the damage.	
will prevent damage to the		
safety-related equipment		
consistent with GDC-3.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 141 of 306)

Fire Zone: **FA2-312-02** Building: Reactor Area Designation: C-Class 1E I&C Room Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 2001, 14, 72 Floor(s): Zone Designation: C-Class 1E I&C Room Raised and 804 9A-5 Fig: Floor Sect: 3.4455 Associated Safety Division(s) С

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	FA2-206-01	
FA2-321-01		

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.

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Btu)

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.7 2.9E+05
Maximum Anticipated Combustible Loading:	4.4 3.5E+05

Floor Area (ft²)

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 Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to	
this space which is possible	damage safe-shutdown	
due to the early smoke	functions associated with safety	
detection system which	train C. Train A, B and D remain	
discharges the gaseous agent	free from the damage.	
will prevent damage to the		
safety-related equipment		
consistent with GDC-3.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 142 of 306)

Fire Zone: **FA2-313-01** Building: Reactor Area Designation: **D-Class 1E UPS Room** Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **D-Class 1E UPS Room** 804 9A-5, 9A-6 Fig: Sect: 3.45<u>56</u> Associated Safety Division(s) С

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-205-01	FA2-205-01	FA2-403-01
FA2-312-01	FA2-309-01	FA2-404-01
FA2-309-01		
FA2-309-02	See Table 9A-3	
FA2-314-01		
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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.2 6.4E+04
Maximum Anticipated Combustible Loading:	3.9 7.7E+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

Floor Area (ft ²)
<u>42</u> 00

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train D. Train A, B and C remain
consistent with GDC-3.	free from the damage.

Fire Detection - Backup

Manual Fire Alarm Pull Station

Table 9A-2 Fire Hazard Analysis Summary (Sheet 143 of 306)

Fire Zone: **FA2-314-01** Building: Reactor Area Designation: C-Class 1E UPS Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 2F, 2MF Zone Designation: C-Class 1E UPS Room 804 Fig: 9A-5, 9A-6 Associated Safety Division(s) С Sect: 3.46<u>57</u>

Automatic smoke

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	
FA2-321-01	FA2-312-01	See Table 9A-3
	FA2-321-01	

Fire Barrier Description:

Fire Detection - Primary

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)
Panels High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	3.8E+06 1.9E+06 1.4E+06 2.5E+06 2.2E+06

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.3 5.8E+04
Maximum Anticipated Combustible Loading:	<u>47</u> .0E+04

Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher
Fire Impact to Zone	

	The impact to Zone	
	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	A fire has the potential to
	suppressed fire in this room	damage safe-shutdown
Floor	will minimize fire damage to	functions associated with safety
Area	the safety-related equipment	train C. Train A, B and D remain
(ft ²)	consistent with GDC-3.	free from the damage.
, ,		
350 200		

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 144 of 306)

Fire Zone: **FA2-316-01** Building: Reactor Area Designation: FA2-316 Corridor Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-316-01 Corridor 804 9A-5, 9A-6 Fig: Sect: 3.18<u>58</u> Associated Safety Division(s)

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		
FA2-209-04	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)
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
Fig. 0	Fig. 0
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	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 145 of 306)

Fire Zone: **FA2-317-01** Building: Reactor Area Designation: FA2-317 Corridor Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-317-01 Corridor 804 9A-5, 9A-6 Fig: Sect: 3.18<u>59</u> Associated Safety Division(s) Α

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		
FA2-209-05		See Table 9A-3
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 Zone Combustible Summary		
Btu/ft ²		
Anticipated Combustible Loading:	2.4E+04	
Maximum Anticipated Combustible Loading:	2.9E+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		

	The impact to Zene				
	Suppression System Operates	Suppression System Fails to Op.			
	A quickly detected and	There is no safe-shutdown			
	suppressed fire in this room	circuit in this zone to be			
Floor	will minimize fire damage to	damaged.			
Area	the safety-related equipment				
(ft ²)	consistent with GDC-3.				
(-)					
750					

Fire Impact to Zone

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 146 of 306) Fire Zone: **FA2-318-01** Building: Reactor Area Designation: FA2-318 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 2F, 2MF Zone Designation: FA2-318-01 Zone 804 Fig: 9A-5, 9A-6 3.1860 Associated Safety Division(s) Sect: NA A Wall Fire Barrier Description: Floor Ceiling Walls of reinforced concrete or other material providing a Adjacent Fire Zones: FA2-152-05 FA2-152-01 FA2-407-03 (Primary Inter face FA2-152-06 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA2-317-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA2-321-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Item Fire Detection – Primary Fire Detection - Backup High Voltage Cables 1.6E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 1.2E+06 2.1E+06 Control Cables 1.9E+06 Instrumentation Cables Fire Suppression - Primary Fire Suppression - Backup Fire Hose Station Portable Fire Extinguisher Floor

Fire Zone Combustible Summary		
Btu/ft ²		
Anticipated Combustible Loading:	2.2E+04	
Maximum Anticipated Combustible	2.7E+04	
Loading:		

Area (ft^2) 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.	There is no safe-shutdown circuit in this zone to be damaged.			

Fire Zone: FA2-319-0	1							
Building:	Reactor	Area Designation:		ion: FA2-319 Area			Applicable Regulatory and Code Ref(s):	
Floor(s):	2F, 2MF						BC, RG 1.189; NFPA 10, 14, 72 and	
		Zone De	signation:	FA2-319-0	01 Zone	8	304	
<u> </u>	9A-5, 9A-6	Associated Cafety	Division(s)		NI I			MIC-
Sect:	3. 18 <u>61</u>	Associated Safety	DIVISION(S)		N			0001
	Wall	Floor	C	eiling	Fire Barrier Desc	ription:		7
Adjacent Fire Zones:		FA2-151-01		2-420-02			crete or other material providing a	
(Primary Inter face	FA2-151-06						istance rating form the boundaries	
Listed See Table 9A-3	FA2-316-01				of this room. Th	e door t	o the room is 3-hour fire rated and	
For Complete Listing)	FA2-320-01				all openings and	d penetr	ations into the room are rated to	
		•	•		provide 3-hour f	ire resis	stance.	
	l Combustibles	(5)						_
Item		t Release (Btu)			tection – Primary		Fire Detection - Backup	
High Voltage (1.6E+06	Auto	matic smo	Ke	IVIa	nual Fire Alarm Pull Station	
Low Voltage (Control (1.2E+06 2.1E+06						
Instrumentation (1.9E+06						
mstrumentation (Janies	1.32700						
				Fire Supr	oression – Primary		Fire Suppression - Backup	
			Fire	Hose Static		Po	rtable Fire Extinguisher	
							3	
							pact to Zone	
					uppression System Ope	erates	Suppression System Fails to Op.	_
					quickly detected and uppressed fire in this	room	There is no safe-shutdown circuit in this zone to be	
Fire Zone Co	mbustible Summ	arv	Flo		ill minimize fire dama		damaged.	
THE ZONE GO	inbustible outlin	ary	Are	1 1	ne safety-related equip		uamageu.	
		Btu/ft ²	(ft		onsistent with GDC-3.			
Anticipated Combustible Lo	pading:	2.2E+04	(11)	′				
Maximum Anticipated Comb	uatibla	2.7E+04	30	<u> </u>				
	ustible	4.7 ETU4	30	'				

Table 9A-2 Fire Hazard Analysis Summary (Sheet 148 of 306)

Fire Zone: **FA2-320-01** Building: Reactor Floor(s): 2F, 2MF

Area Designation: FA2-320 Corridor Zone Designation: FA2-320-01 Corridor

Automatic smoke

Fire Hose Station

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Fire Suppression - Backup

Manual Fire Alarm Pull Station

Portable Fire Extinguisher

Fig: 9A-5, 9A-6 Sect: 3.2962

Associated Safety Division(s)

Fire Detection - Primary

Fire Suppression - Primary

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
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

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)		
High Voltage Cables	7.9E+06		
Low Voltage Cables	6.0E+06		
Control Cables	1.1E+07		
Instrumentation Cables	9.3E+06		

			· ·
	Fire	Impa	act to Zone
	Suppression System Operate	S	Suppression System Fails to Op.
	A quickly detected and		There is no safe-shutdown
	suppressed fire in this roon	n	circuit in this zone to be
Floor	will minimize fire damage to	,	damaged.
Area	the safety-related equipmen		3

consistent with GDC-3.

Fire Zone Combustible Summary Btu/ft² Anticipated Combustible Loading: 2.2E+04 Maximum Anticipated Combustible 2.76E+04 Loading:

Area (ft²) 1,5<mark>0</mark>50

safe-shutdown is zone to be

MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 149 of 306)

Fire Zone: **FA2-321-01** Building: Reactor Area Designation: FA2-321 Corridor Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-321-01 Corridor 804 9A-5, 9A-6 Fig: Associated Safety Division(s) Sect: 3.3463

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-05	FA2-152-04	FA2-419-01
FA2-108-01	FA2-205-01	FA2-423-01
FA2-110-01	FA2-206-01	
FA2-152-06		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	1.8E+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
Fin O Direct	Fire O
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)
1,700

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

Fire Hazard Analysis Summary (Sheet 150 of 306) Table 9A-2 Fire Zone: **FA2-322-01** Building: Reactor Area Designation: FA2-322 Area Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-322-01 Piping Room 804 Fig: 9A-5 MIC-03-09-3.1864 Associated Safety Division(s) Sect: NA, D 00015 Wall Fire Barrier Description: Floor Ceiling Walls of reinforced concrete or other material providing a Adjacent Fire Zones: FA2-127-08 FA2-127-07 FA2-127-08 (Primary Inter face FA2-153-05 FA2-153-01 minimum 3-hour fire resistance rating form the boundaries MIC-03-09-Listed See Table 9A-3 FA2-209-05 of this room. The door to the room is 3-hour fire rated and 00015 For Complete Listing) FA2-213-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Item Heat Release (Btu) 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

Instruments High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	1.8E+05 7.9E+05 6.0E+05 1.1E+06 9.3E+05

Fire Zone Combustible Summary		Flo Are
	Btu/ft ²	(ft ²
Anticipated Combustible Loading:	2.4E+04	
Maximum Anticipated Combustible	2.9E+04	15
Loading:		

Floor Area (ft ²)
150

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 151 of 306)

Fire Zone: **FA2-323-01** Building: Reactor Area Designation: FA2-323 Area Applicable Regulatory and Code Ref(s): Floor(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: FA2-323-01 Piping Room 804 Fig: 9A-5, 9A-6 Associated Safety Division(s) Sect: 3.1865

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Tier 2

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
Instrume	entation Cables	9.3E+05

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.8E+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 Impact to Zone

	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	There is no safe-shutdown
	suppressed fire in this room	circuit in this zone to be
Floor	will minimize fire damage to	damaged.
Area	the safety-related equipment	
(ft ²)	consistent with GDC-3.	
()		
450		
150		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 152 of 306)

Fire Zone: **FA2-323-02** Building: Reactor Area Designation: FA2-323 Area Applicable Regulatory and Code Ref(s): 2F, 2MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-323-02 Piping Room 804 9A-5, 9A-6 Fig: Sect:

3.1865 Associated Safety Division(s) 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 Zone Combustible Summary	
Btu/ft ²	
2.2E+04	
2.7E+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	There is no safe-shutdown
suppressed fire in this room	circuit in this zone to be
will minimize fire damage to	damaged.
the safety-related equipment	_
consistent with GDC-3.	

Floor Area (ft²)

700

Table 9A-2 Fire Hazard Analysis Summary (Sheet 153 of 306)

Fire Zone: **FA2-401-01** Building: Reactor 3F Floor(s): 9A-7 Fig: 3.4866 Sect: Associated Safety Division(s)

Area Designation: **B-Class 1E Electrical Room &**

Applicable Regulatory and Code **MCR HVAC Equipment Room** Ref(s):

Zone Designation:

IBC, RG 1.189; NFPA 10, 14, 72 and B-Class 1E Electrical Room & 804 **MCR HVAC Equipment Room**

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-402-01	FA2-302-01	FA2-504-01
FA2-412-01	FA2-303-01	FA2-507-01
FA2-414-01	FA2-307-01	FA2-50 7 1-02
EA2_4204_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.

MIC-03-09-00015

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
	<u> </u>
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	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train B. Train A, C and D remain	
consistent with GDC-3.	free from the damage.	

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

A-Class 1E Electrical Room & 804
MCR HVAC Equipment Room

Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Applicable Regulatory and Code

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-401-01	FA2-302-01	FA2-501-02
FA2-412-01	FA2-304-01	FA2-504-01
FA2-414-01	FA2-307-01	FA2-507-01
FA2-420-01		
FA6-101-15		

Associated Safety Division(s)

Zone Designation:

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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MIC-03-09-

00015

MIC-03-09-00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible	3.7E+04
Loading:	

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

	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	A fire has the potential to
	suppressed fire in this room	damage safe-shutdown
	will minimize fire damage to	functions associated with safety
	the safety-related equipment	train A. Train B, C and D remain
	consistent with GDC-3.	free from the damage.

Fire Impact to Zone

Table 9A-2 Fire Hazard Analysis Summary (Sheet 155 of 306)

Fire Zone: **FA2-403-01** Building: Reactor 3F Floor(s): 9A-7 Fig: 3.5068 Sect: Associated Safety Division(s)

Area 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

Zone Designation:

C-Class 1E Electrical Room & **MCR HVAC Equipment Room**

804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-404-01	FA2-312-01	FA2-5 <mark>0</mark> 12-01
FA2-413-01	FA2-313-01	FA2-503-01
FA2-415-01	FA2-314-01	FA2-508-01
FA2-419-01		FA2-508-02
FΔ6-423-01		

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.

MIC-03-09-00015

MIC-03-09-

00015

MIC-03-09-00015

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

Floor Area (ft^2) 1,300

Fire Impact to Zone		
Suppression System Operates Suppression System Fails to Op.		
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train C. Train A, B and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 156 of 306)

Fire Zone: **FA2-404-01** Building: Reactor 3F Floor(s): 9A-7 Fig: 3.5169

Area 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

Zone Designation:

Associated Safety Division(s)

D-Class 1E Electrical Room & **MCR HVAC Equipment Room**

804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
FA2-403-01	FA2-309-01	FA2-5 <mark>4</mark> 02-01
FA2-413-01	FA2-312-01	FA2-503-01
FA2-415-01	FA3-313-01	FA2-508-01
FA2-419-01		FA2-508-02
FA2-423-01		
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.

MIC-03-09-00015

MIC-03-09-

00015

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
The nose otation	1 Ortable i ile Extiliguisilei

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.1E+04
Maximum Anticipated Combustible Loading:	3.7E+04

Floor Area (ft²) 1,300

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train D. Train A, B and C remain
consistent with GDC-3.	free from the damage.
	_

Table 9A-2 Fire Hazard Analysis Summary (Sheet 157 of 306)

Fire Zone: **FA2-405-01 A-MCR Emergency Filtration** Building: Reactor Area Designation: Applicable Regulatory and Code Unit & Fan Room Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **A-MCR Emergency Filtration** 15, 804 9A-7 Fig: **Unit & Fan Room** Sect: 3.5270 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-406-01	FA2-308-02	FA2-414-01
FA2-412-01		
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.

MIC-03-09-00015

MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.8E+04
Maximum Anticipated Combustible Loading:	4.6E+04

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 Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly supressed fire in	There is no safe-shutdown	
this area would minimize	circuit in this zone to be	
damage to safety-related	damaged.	
equipment consistent with		
GDC-3.		

Floor Area (ft²)

600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 158 of 306)

Fire Zone: **FA2-406-01 B-MCR Emergency Filtration** Building: Reactor Area Designation: Applicable Regulatory and Code Unit & Fan Room Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **B-MCR Emergency Filtration** 15, 804 9A-7 Fig: Unit & Fan Room Sect: 3.5371 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-405-01	FA2-308-01	FA2-415-01
FA2-413-01		
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.

I MIC-03-09-00015

MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.8E+04
Maximum Anticipated Combustible 4.6E+04 Loading:	

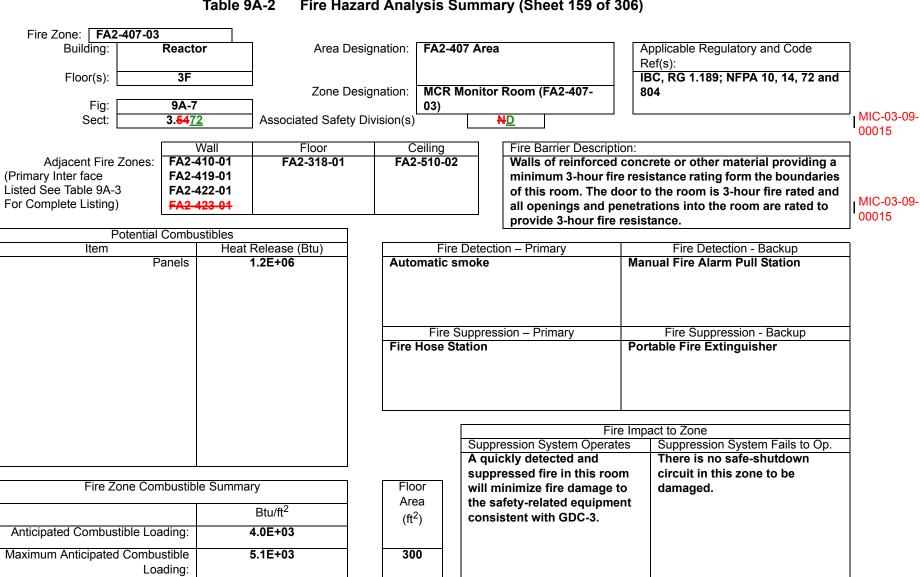
Fire Detection – Primary	Fire Detection - Backup
Automatic smoke/heat	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Water spray, and Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly supressed fire in	There is no safe-shutdown	
this area would minimize	circuit in this zone to be	
damage to safety-related	damaged.	
equipment consistent with	_	
GDC-3.		

Floor Area (ft²)

600

Table 9A-2 Fire Hazard Analysis Summary (Sheet 159 of 306)



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Table 9A-2 Fire Hazard Analysis Summary (Sheet 160 of 306)

Fire Zone: **FA2-408-01** Building: Reactor Area Designation: R/B-3F A-Electrical Penetration Applicable Regulatory and Code Area Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: R/B-3F A-Electrical Penetration 804 9A-7 Fig: Area 3.5573 Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
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	

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	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 - Backup
Manual Fire Alarm Pull 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

Floor
Area
(ft ²)
1,150

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

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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): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: R/B-3F B-Electrical Penetration 804 9A-7 Fig: Area Sect: 3.5674 Associated Safety Division(s) В

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		
FA2-420-01	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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible	2.8E+04
Loading:	

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

	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	A fire has the potential to
	suppressed fire in this room	damage safe-shutdown
Floor	will minimize fire damage to	functions associated with safety
Area	the safety-related equipment	train B. Train A, C and D remain
(ft ²)	consistent with GDC-3.	free from the damage.
(/		
4 0 - 0		
1,350		

Fire Impact to Zone

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Fire Hazard Analysis Summary (Sheet 162 of 306) Table 9A-2

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 Floor(s): 4F Zone Designation: R/B-4F Electrical Penetration 804 9A-8 Fig: Area (FA2-117-34) Sect: 3.1874 Associated Safety Division(s)

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		Roof
FA2-210-15	See Table 9A-3	
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 Heat Release (Btu) Item Instruments 7.0E+05 Panels 1.6E+05 6.1E+06 High Voltage Cables Low Voltage Cables 4.6E+06 **Control Cables** 8.1E+06 Instrumentation Cables 7.1E+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 Ope	rates Suppression System Fails to

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.1E+04
Maximum Anticipated Combustible Loading:	2.6E+04

Floor Area (ft^2) 1,250

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train B. Train A, C and D remain	
consistent with GDC-3.	free from the damage.	

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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): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: R/B-3F C-Electrical Penetration 804 9A-7 Fig: Area 3.5775 Sect: Associated Safety Division(s) С

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+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

	The impact to Zone		
	Suppression System Operates	Suppression System Fails to Op.	
	A quickly detected and	A fire has the potential to	
	suppressed fire in this room	damage safe-shutdown	
Floor	will minimize fire damage to	functions associated with safety	
Area	the safety-related equipment	train C.	
(ft ²)	consistent with GDC-3.	Train A, B and D remain free	
()		from the damage.	
1,350			

Fire Impact to Zone

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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): Floor(s): 4F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: R/B-4F C-Electrical Penetration 804 Fig: 9A-8 Area MIC-03-09-Sect: 3.1875 Associated Safety Division(s) С 00015 Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA1-101-24 FA2-410-01 Roof Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-208-01 fire resistive capability. Three hour fire rated door to area MIC-03-09-Listed See Table 9A-3 FA2-210-21 See Table 9A-3 and all openings and penetrations to fire area are 00015 For Complete Listing) FA2-214-07 protected to 3-hour fire resistance. This zone has FA2-510-01 unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area. Fire Detection - Primary Fire Detection - Backup Manual Fire Alarm Pull Station

Potential Combustibles	
Item	Heat Release (Btu)
High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	3.4E+06 2.6E+06 4.6E+06 4.0E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Automatic smoke	Manual Fire Alarm Pull Station	
Fire Suppression – Primary	Fire Suppression - Backup	
Fire Hose Station	Portable Fire Extinguisher	
Fire Impact to Zone		

supp will n
the s
cons

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train C. Train A, B and D remain
consistent with GDC-3.	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 165 of 306)

Fire Zone: **FA2-411-01** Building: Reactor Area Designation: R/B-3F D-Electrical Penetration Applicable Regulatory and Code Area Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: R/B-3F D-Electrical Penetration 804 9A-7 Fig: Area 3.58<u>76</u> Sect: Associated Safety Division(s) D

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	FA2-210-21
		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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.2E+04
Maximum Anticipated Combustible	2.7E+04
Loading:	

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

	_
Floor	
Area	
(ft ²)	
()	
1,650	

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train D.
consistent with GDC-3.	Train A, B and C remain free
	from the damage.
	_

Table 9A-2 Fire Hazard Analysis Summary (Sheet 166 of 306)

Fire Zone: **FA2-412-01** FA2-412 Duct Space Area Building: Reactor Area Designation: Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): FA2-412 Duct Space Area Zone Zone Designation: 804 Fig: 9A-7 3.5977 Associated Safety Division(s) A,B Sect:

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-401-01	FA2-308-02	FA2-414-01
FA2-402-01		
FA2-405-01	See Table 9A-3	
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	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)
1,450

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the few functions of A,	
will minimize fire damage to	B safeshutdown train.	
the safety-related equipment consistent with GDC-3.	C, D train remain free from fire damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 167 of 306)

Fire Zone: **FA2-413-01** FA2-413 Duct Space Area Building: Reactor Area Designation: Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): FA2-413 Duct Space Zone Zone Designation: 804 Fig: 9A-7 Associated Safety Division(s) Sect: 3.6078 C,D

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-403-01	FA2-308-01	FA2-415-01
FA2-404-01		
FA2-406-01	See Table 9A-3	
FA2-412-01		

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	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
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

Floor Area (ft ²)
1,450

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the few functions of C,	
will minimize fire damage to	D safeshutdown train.	
the safety-related equipment	A, B train remain free from fire	
consistent with GDC-3.	damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 168 of 306)

Fire Zone: FA2-414-01
Building: Reactor
Floor(s): 3F to Roof

Area Designation: FA2-414 MSFW Piping Room

FA2-414-01 MSFW Piping Room 804

Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Applicable Regulatory and Code

Fig: **9A-7 to 9A-10**Sect: **3.64**<u>79</u>

Associated Safety Division(s)

Zone Designation:

A,B

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
	F. 6
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2. 7 <u>8</u> E+04
Maximum Anticipated Combustible Loading:	3.3E+04

Floor
Area
(ft ²)
()
2,7 <mark>5</mark> 00

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the few functions of 2	
will minimize fire damage to	safe-shutdown trains. Two	
the safety-related equipment	trains remain free from fire	
consistent with GDC-3.	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

Area Designation: FA2-415 MSFW Piping Room

FA2-415-01 MSFW Piping Room

C,D

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and

Fig: **9A-7 to 9A-10**Sect: **3.6280**

Associated Safety Division(s)

Zone Designation:

804

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. 6 7E+04
Maximum Anticipated Combustible Loading:	3. <u>42</u> E+04

Floor
Area
(ft ²)
(11)
2,7 <mark>50</mark> 0

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the few functions of 2	
will minimize fire damage to	safe-shutdown trains. Two	
the safety-related equipment	trains remain free from fire	
consistent with GDC-3.	damage.	

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MIC-03-09-

00015

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 170 of 306)

Fire Zone: **FA2-416-01** Building: Reactor Area Designation: A-Annulus Emergency Exhaust Applicable Regulatory and Code Filtration Unit & Fan Room Ref(s): IBC, RG 1.189; NFPA 72 and 804 Floor(s): 3F Zone Designation: A-Annulus Emergency Exhaust 9A-7 Fig: Filtration Unit & Fan Room Sect: 3.<mark>4</mark>81 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-18	FA2-154-05	FA2-210-13
FA2-207-01	FA2-323-02	FA2-506-01
FA2-209-06		
FA2-209-07		

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

Potential Combustibles Heat Release (Btu) Item Filters 3.4E+06 Instruments 2.4E+06 Particle Filters 1.1E+06 8.1E+05 Rubber **High Voltage Cables** 6.9E+06 Low Voltage Cables 5.2E+06 **Control Cables** 9.2E+06 Instrumentation Cables 8.0E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.8E+04
Maximum Anticipated Combustible Loading:	3.4E+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
	· ·
	, and the second
	· ·

provide 3-hour fire resistance.

Floor Area (ft ²)	
1,300	

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
extinguished fire in this area	damage safe-shutdown	
will minimize any potential	functions associated with safety	
damage.	train A. Train B, C and D remain	
	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 171 of 306)

Fire Zone: **FA2-417-01 B-Annulus Emergency Exhaust** Building: Reactor Area Designation: Applicable Regulatory and Code Filtration Unit & Fan Room Ref(s): 3F IBC, RG 1.189; NFPA 72 and 804 Floor(s): Zone Designation: **B-Annulus Emergency Exhaust** 9A-7 Fig: Filtration Unit & Fan Room Sect: 3.482 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-411-01	FA2-127-08	FA2-210-16
FA2-418-01		FA2-210-21
		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.

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MIC-03-09-

00015

Potential Combustibles		
Item	Heat Release (Btu)	
Filters Instruments Particle Filters Rubber High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	3.4E+06 1.7E+06 1.1E+06 8.1E+05 5.6E+06 4.2E+06 7.4E+06 6.5E+06	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.9E+04
Maximum Anticipated Combustible	3.5E+04
Loading:	

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
E: 0	<u> </u>
Fire Suppression – Primary	Fire Suppression - Backup
Fire Suppression – Primary Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	There is no safe-shutdown
extinguished fire in this area	circuit in this zone to be
will minimize any potential	damaged.
damage.	

Floor Area (ft²)

1,050

Table 9A-2 Fire Hazard Analysis Summary (Sheet 172 of 306)

Fire Zone: **FA2-418-01** Building: Reactor Area Designation: FA2-418 3F Westside Corridor Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-418-01 3F Westside 804 9A-7 Fig: Corridor Sect: 3.48<u>3</u> Associated Safety Division(s) D

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	FA2-210-21
FA2-208-01	FA2-213-01	FA2-214-06
	See Table 9A-3	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.

MIC-03-09-00015

MIC-03-09-

00015

Potential Combustibles	
Heat Release (Btu)	
Heat Release (Btu) 1.3E+05 4.6E+05 1.3E+07 9.7E+06 1.7E+07 1.5E+07	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible	2.7E+04
Loading:	

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 0		
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train D. Train A, B and C remain	
consistent with GDC-3.	free from the damage.	

Floor Area (ft²)

Table 9A-2 Fire Hazard Analysis Summary (Sheet 173 of 306)

Fire Zone: **FA2-419-01** Building: Reactor Area Designation: FA2-419 3F Non-Radioactive Applicable Regulatory and Code **Area Westside Corridor** Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-419-01 3F Non-Radioactive 804 9A-7 Fig: **Area Westside Corridor** Sect: 3.584 Associated Safety Division(s) <u>€</u>D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-16	FA2-152-06	FA2-415-01
FA2-40 3 4-01	FA2-321-01	FA2-509-01
FA2-407-03	See Table 9A-3	FA2-510-02
FA2-410-01		

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.

MIC-03-09-00015

MIC-03-09-

00015

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 Zone Combustible Summary				
	Btu/ft ²			
Anticipated Combustible Loading:	2.3 1.4E+04			
Maximum Anticipated Combustible	2 1.7E+04			
Loading:				

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	There is no safe shutdown		
suppressed fire in this room	circuit in this zone to be-		
will minimize fire damage to	damaged. A fire has the potential		
the safety-related equipment	to damage safe-shutdown		
consistent with GDC-3.	functions associated with safety		
	train D.		
	Train A, B and C remain free		
	from the damage.		
	_		

MIC-03-09-00015

Tier 2 9A-499 Revision 3

Floor Area (ft²)

91,5</u>50

Table 9A-2 Fire Hazard Analysis Summary (Sheet 174 of 306)

Fire Zone: **FA2-420-01** Building: Reactor Area Designation: FA2-420 Area Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-420-01 3F Non-Radioactive 804 9A-7 Fig: **Area Westside Corridor** 3.54<u>85</u> Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA1-101-15	FA2-102-01	FA2-414-01
FA2-101-01	FA2-151-06	FA2-507-01
FA2-401-01	FA2- <u>3</u> 20 2 -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.

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00015

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 Zone Combustible Summary				
	Btu/ft ²			
Anticipated Combustible Loading:	2.3 3.2E+04			
Maximum Anticipated Combustible	2 3.8E+04			
Loading:				

Floor
Area
(ft ²)
, ,
1, 9 400

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	A fire has the potential to			
	suppressed fire in this room	damage safe-shutdown			
	will minimize fire damage to	functions associated with safety			
	the safety-related equipment	train A. Train B, C and D remain			
	consistent with GDC-3.	free from the damage.			

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		Та	ble 9A-2 Fire H	azard Anal	ysis Sum	mary (Sheet 175	of 306)		
Fire Zone: FA2-4 Building: Floor(s): Fig: Sect:		3F 9A-7 3. <u>8</u> 54		Designation: Designation: ety Division(s)	02)	rea tor Room (FA2-420	Ref	plicable Regulatory and Code f(s): 5, RG 1.189; NFPA 10, 14, 72 and	_
Adjacent Fire Z (Primary Inter face Listed See Table 9A-3 For Complete Listing)	ones:	Wali FA2-409- FA2-420- FA2-421-	01 FA2-319-01 01		Ceiling 2-513-01	fire resistive of and all opening protected to 3 unprotected of	ncrete walls apability. Th gs and pene -hour fire re penings with	providing in excess of 3-hour tree hour fire rated door to area etrations to fire area are sistance. This zone has h spatial separation to mitigate cones in this fire area.	_
Po Item		Combustib anels	les Heat Release (Btu) 1.2E+06	Auto	omatic smok		Manu	Fire Detection - Backup lal Fire Alarm Pull Station	_
					Fire Supp	ression – Primary		Fire Suppression - Backup	

Fire Hose Station

Item	Heat Release (Btu)
Panels	1.2E+06

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	4.0E+03
Maximum Anticipated Combustible Loading:	5.1E+03

Floor Area (ft ²)
300

Fire Impact to Zone		
<u> </u>		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

Portable Fire Extinguisher

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 176 of 306)

Fire Zone: **FA2-421-01** Building: Reactor Area Designation: FA2-421 Corridor Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-421-01 Corridor 804 Fig: 9A-7 Associated Safety Division(s) Sect: 3.48<u>6</u>

Adjacent Fire Zones:

(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
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		

Fire Barrier Description:

Α

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	4.8E+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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.4E+04
Maximum Anticipated Combustible Loading:	2.9E+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 Hose Station	Portable Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher

Floor Area (ft ²)
750

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train A. Train B, C and D remain	
consistent with GDC-3.	free from the damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 177 of 306)

Fire Zone: **FA2-422-01** Building: Reactor Area Designation: FA2-422 Corridor Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 3F Zone Designation: FA2-422-01 Corridor 804 Fig: 9A-7 Associated Safety Division(s) Sect: 3.487 D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-208-01	FA2-153-05	FA2-210-21
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.

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MIC-03-09-

Potential Combustibles	
Item	Heat Release (Btu)
Item Instruments Panels High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	4.3E+04 1.5E+05 4.2E+06 3.2E+06 5.6E+06 4.9E+06

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.3E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
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	A fire has the potential to
	suppressed fire in this room	damage safe-shutdown
loor	will minimize fire damage to	functions associated with safety
4rea	the safety-related equipment	train D. Train A, B and C remain
(ft ²)	consistent with GDC-3.	free from the damage.
` ,		
800		
800		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 178 of 306)

Fire Zone: **FA2-423-01** Applicable Regulatory and Code Building: Reactor Area Designation: FA2-423 Corridor Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA2-423-01 Corridor 804 9A-7 Fig: Sect: 3.5488 Associated Safety Division(s) DC

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-140 <u>8</u> -01	FA2-108-01	FA2-505-01
FA2-403-01	FA2-205-01	FA2-509-01
FA2-419-01	FA2-314-01	FA2-510-02
FA2-404-01	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.

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MIC-03-09-

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Potential Combustibles					
Item	Heat Release (Btu)				
Instruments Panels High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	1.9E+05 2.8E+04 5.8E+06 4.4E+06 7.8E+06 6.8E+06				

Fire Zone Combustible Summary				
	Btu/ft ²			
Anticipated Combustible Loading:	2.3 7.1E+04			
Maximum Anticipated Combustible Loading:	2.7 <u>8.6</u> E+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		

act to Zone
Suppression System Fails to Op.
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.

MIC-03-09-00015 MIC-03-09-00015

Floor Area (ft ²)
1,100 <u>350</u>

	Table 9	A-2 <u>Fire Haza</u>	rd Analysis Su	mmary (Sheet 179 of 3	306)	MIC-03-09-
Fire Zone: FA2-424-01 Building: F Floor(s): Fig: Sect:	3F 9A-7 3.89	Area Desi Zone Desi Associated Safety D	gnation: FA2-424	4 Corridor 4-01 Corridor B	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804	
(Primary Inter face Listed See Table 9A-3	Wall FA1-101-01 FA2-102-01 FA2-401-01 FA2-420-01	Floor FA2-303-01 FA3-320-01	<u>Ceiling</u> <u>FA2-507-01</u>	minimum 3-hour fir of this room. The d	concrete or other material providing a resistance rating form the boundaries oor to the room is 3-hour fire rated and renetrations into the room are rated to	
<u>Item</u> <u>Instrum</u>	ents nels bles bles bles	Release (Btu) 3.5E+05 5.3E+04 1.0E+07 7.7E+06 1.4E+07 1.2E+07	Automatic sm	Detection – Primary noke	Fire Detection - Backup Manual Fire Alarm Pull Station Fire Suppression - Backup Portable Fire Extinguisher	
Fire Zone Comb - Anticipated Combustible Load Maximum Anticipated Combus Load	ling:	Btu/ft ² 1.3E+05 1.5E+05	Floor Area	First Suppression System Operated A quickly detected and suppressed fire in this roow ill minimize fire damage to the safety-related equipments consistent with GDC-3.	A fire has the potential to damage safe-shutdown functions associated with safety	

		Table 9	9A-2 Fire Hazar	d Anal	ysis Sun	nmary (Sheet 180 of 3	306)	
Fire Zone: FA2-501 Building: Floor(s):	Re	actor	Area Desi Zone Desi			ency Feedwater Pit	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804]
Fig: Sect:		3, 9A-9 <mark>63</mark> 90	Associated Safety D			<u>NA. B</u>		MIC-03-09- 00015
Adjacent Fire Zone (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Adjacent Fire Zones: FA2-414-01 FA2- ry Inter face FA2-507-01 See Table 9A-3 FA2-507-02		Floor FA2-40<u>2</u>1-01	Roof Walls of reinforc minimum 3-hour of this room. The all openings and		minimum 3-hour fire of this room. The de	concrete or other material providing a e resistance rating form the boundaries oor to the room is 3-hour fire rated and enetrations into the room are rated to	MIC-03-09- 00015
Potential Combustibles Item Heater Transient Only		Heat	Release (Btu) 9.3E+04			Fire Detection - Backup Manual Fire Alarm Pull Station]	
				Fire	Fire Sup Hose Stati	pression – Primary on	Fire Suppression - Backup Portable Fire Extinguisher	
Fire Zone Anticipated Combustible		stible Summa	Btu/ft ²	Flo Are (ft²	in vor ea a a s	Fire Suppression System Operate A fire in this area credibly involves transient material which personnel would not fire involving and initiate suppression using portable extinguishers or manual here.	There is no safe-shutdown circuit in this zone to be tice damaged. fire	- - - -
Maximum Anticipated Con		ole	7.2E+01	1,30	6	streams before damage.	use	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 181 of 306)

Fire Zone: **FA2-502-01** Building: Reactor Area Designation: Reactor Trip Breaker Cabinet-1 Applicable Regulatory and Code Room Floor(s): 4F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: Reactor Trip Breaker Cabinet-1 804 Fig: 9A-8 Room MIC-03-09-Sect: 3.6491 Associated Safety Division(s) A,B,C,D 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA2-503-01 FA2-4034-01 Roof Walls of reinforced concrete or other material providing a 00015 (Primary Inter face FA2-508-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA2-508-02 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA2-509-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item Manual Fire Alarm Pull Station Panels 7.3E+05 Automatic smoke Fire Suppression – Primary Fire Suppression - Backup Fire Hose Station Portable Fire Extinguisher Fire Impact to Zone Suppression System Fails to Op. Suppression System Operates A quickly detected and A fire has the potential to suppressed fire in this room damage 4 trains circuits for Fire Zone Combustible Summary Floor will minimize fire damage to RTB-1, but Circuits for RTB-2 Area the safety-related equipment remains free from fire damage. Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 4.9E+03 Maximum Anticipated Combustible 6.5E+03 150 Loading:

		Table	9A-2 Fire Haza	rd Anal	ysis Su	mmary	(Sheet 182 of 3	306)		
Fire Zone: FA2-503	8-01									
Building:		eactor	Area Designation		ion: Reactor Trip Breaker Cabinet-2 Room			Applicable Regulatory and Code Ref(s):		
Floor(s):		4F		i a m a ti a m .	Dagatan	December 7 de December 0 de la constant 0		IBC, RG 1.189; NFPA 10, 14, 72 and 804		
Fig:	9	9A-8	Zone Des	ignation:	n: Reactor Trip Breaker Cabinet-2 Room		aker Cabinet-2			
Sect:	5 I		Associated Safety Division(s)		A,B,C,D				MIC-03-09 00015	
		Wall	Floor	C	eiling		ire Barrier Descripti	on:		1
Adjacent Fire Zone		A2-502-01	FA2-40 <mark>3</mark> 4-01 FA2		2-602-01	V	Valls of reinforced	cond	crete or other material providing a	MIC-03-09 00015
(Primary Inter face Listed See Table 9A-3		A2-508-02 A2-509-01			Roof				istance rating form the boundaries o the room is 3-hour fire rated and	00015
For Complete Listing)								penetrations into the room are rated to		
Potor	atial Co	mbustibles				р	rovide 3-hour fire	resis	tance.	
Item	iliai CO		Release (Btu)		Fire D	Detection -	- Primary		Fire Detection - Backup]
	Pan	els	7.3E+05	Auto	matic sm	noke	·	Ма	nual Fire Alarm Pull Station	1
					Eiro Su	upproceior	n – Primary		Fire Suppression - Backup	
				Fire	Hose Stat		ı – Fililialy	Pol	rtable Fire Extinguisher	-
					11030 0101			10	able i ne Extinguisher	
							Fire	e Imp	eact to Zone	<u> </u>
						Suppress	sion System Operate		Suppression System Fails to Op.	1
						A quickly	y detected and		A fire has the potential to	
Fire Zone	Combu	ıstible Summa	arv	Flo			sed fire in this roo mize fire damage t		damage 4 trains circuits for RTB-2, but Circuits for RTB-1	
			•	Are			y-related equipme		remains free from fire damage.	
			Btu/ft ²	(ft ²			nt with GDC-3.			
Anticipated Combustible			4.9E+03							
Maximum Anticipated Co	mbustil Loadir		6.5E+03	15	0					

Table 9A-2 Fire Hazard Analysis Summary (Sheet 183 of 306)

Fire Zone: **FA2-504-01** Building: Reactor Area Designation: Remote Shutdown Console Applicable Regulatory and Code Room Ref(s): 4F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: Remote Shutdown Console 804 9A-8 Fig: Room A,B,C,D Sect: 3.6693 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-414-01	FA2-40 <mark>4</mark> 2-01	FA2-414-01
FA2-507-01		FA2-601-01
FA2-507-02		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.

MIC-03-09-00015

MIC-03-09-

00015

Potential Combu	ustibles
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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	3.4E+04	
Maximum Anticipated Combustible	4.2E+04	
Loading:		

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Portable Fire Extinguisher

	i iic iiipt	act to Zoric
	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	A fire has the potential to
	suppressed fire in this room	damage 4 trains of remote safe
	will minimize fire damage to	shutdown functions, but plant
	the safety-related equipment	operation can be controlled
	consistent with GDC-3.	from Main Control Board.

Fire Impact to Zone

Floor Area (ft²)

200

	Table	9A-2 Fire Haza	ra Anai	iysis Sum	imary (Sheet 184 of	306)		
Fire Zone: FA2-505-01 Building: Reactor Floor(s): 4F to Roof		Area Designation:		FA2-505 Stairwell		R	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 14, 72 and 804	
Fig: 9A-	8 to 9A-10	Zone Desi			01 Stairwell		50, NO 1.103, NI FA 14, 72 and 004	MIC-03
Sect:	3. 67 94	Associated Safety D			N			00015
Listed See Table 9A-3 For Complete Listing)	Wall FA2-509-01 FA2-604-01	Floor FA2-423-01		Ceiling Roof	minimum 3-hour fit of this room. The o	d conc ire resi door to enetra	crete or other material providing a sistance rating form the boundaries of the room is 3-hour fire rated and ations into the room are rated to tance.	
Potential C	Combustibles Hea	t Release (Btu)		Fire De	tection – Primary		Fire Detection - Backup	1
			Fire	Fire Supp Hose Statio	oression – Primary on		Fire Suppression - Backup ere is no backup suppression etem.	
							act to Zone	
				Α	uppression System Opera fire in this area credibly volves transient materia	<i>'</i>	Suppression System Fails to Op. There is no safe-shutdown circuit in this zone to be	
Fire Zone Combustible Summ		nmary		Floor which personnel would		notice damaged.		
		Btu/ft ²	(ft	- -	fire involving and initiate uppression using manua			
Anticipated Combustible Load	ding:	nil	,,,,		ose streams before dam			
Maximum Anticipated Combus Load	stible ding:	9.3E+02	10	00				

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 185 of 306)

Fire Zone: **FA2-506-01** C/V Equipment Hatch R/B Side Building: Reactor Area Designation: Applicable Regulatory and Code Room Ref(s): 4F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): C/V Equipment Hatch R/B Side Zone Designation: 804 9A-8 Fig: Room

Sect: 3.4895 Associated Safety Division(s) A

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 Combu	ıstibles
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 Zone Combustible Summary		
Btu/ft ²		
2.3E+04		
2.8E+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

Floor Area (ft²)	suppress will minim the safety consisten
3,250	

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown		
suppressed fire in this room	circuit in this zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment	-		
consistent with GDC-3.			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 186 of 306)

Fire Zone: **FA2-507-01** Building: Reactor Floor(s): 4F, Roof 9A-8, 9A-9 Fig:

Area Designation: FA2-507 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Sect: 3.<u>9</u>63

Zone Eastside Corridor Associated Safety Division(s)

Zone Designation:

FA2-507-01 Non-Radioactive

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	FA2-40 <mark>4</mark> 2-01	FA2-601-02
FA2-101-01	FA2-414-01	FA2-603-01
FA2-210-15	FA2-420-01	Roof
	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

MIC-03-09-00015

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	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

Floor Area (ft^2) 2,400

Fire Impact to Zone		
Suppression System Fails to Op.		
A fire has the potential to		
damage the few functions of 2		
safe-shutdown train. Two trains		
remain free from the fire		
damage.		

Fire Detection - Backup

Manual Fire Alarm Pull Station

Table 9A-2 Fire Hazard Analysis Summary (Sheet 187 of 306)

Fire Zone: **FA2-507-02** Building: Reactor Area Designation: FA2-507 Area Applicable Regulatory and Code Ref(s): Floor(s): 4F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: SGBD Water Radiation Monitor 804 Fig: 9A-8 Room MIC-03-09-Sect: 3.<u>9</u>63 Associated Safety Division(s)

Automatic smoke

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-414-01	FA2-40 <mark>4</mark> 2-01	FA2-414-01
FA2-501-02		FA2-601-01
FA2-504-01		FA2-601-02
FA2-507-01		

Fire Barrier Description:

Fire Detection – Primary

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

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4.3E+04
Maximum Anticipated Combustible	5.1E+04
Loading:	

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	A fire has the potential to
	suppressed fire in this room	damage the few functions of 2
Floor	will minimize fire damage to	safe-shutdown train. Two trains
Area	the safety-related equipment	remain free from the fire
(ft ²)	consistent with GDC-3.	damage.
. ,		
600		
000		
	1	

Fire Detection - Backup

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 Floor(s): 4F Zone Designation: MG Set Room 804 Fig: 9A-8 3.6397 Associated Safety Division(s) Sect: <u>€</u>D

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-415-01	FA2-40 <mark>3</mark> 4-01	Roof
FA2-502-01		
FA2-508-02		
FA2-509-01	See Table 9A-3	

Fire Barrier Description:

Fire Detection – Primary

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

MIC-03-09-

00015

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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2.6E+04	
Maximum Anticipated Combustible Loading:	3.1E+04	

Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	There is no safe-shutdown
	suppressed fire in this room	circuit in this zone to be
Floor	will minimize fire damage to	damaged.
Area	the safety-related equipment	
(ft ²)	consistent with GDC-3.	
(10)		
600		

Fire Impact to Zone

	lable	9A-2 Fire Hazar	u Anai	ysis Sumi	nary (Sneet 189 of 3	306)	
Fire Zone: FA2-508-02							
Building:	Reactor	Area Desig	nation:	FA2-508 A	rea	Applicable Regulatory and Code]
	45					Ref(s):	
Floor(s):	4F					IBC, RG 1.189; NFPA 10, 14, 72 and	
		Zone Desig	nation:	MG Set Co	ntrol Panel Room	804	
Fig:	9A-8						
Sect:	3. 63 97	Associated Safety Div	vision(s)		C D		MIC-03-09-
			` '	<u> </u>			00015
	Wall	Floor	С	eiling	Fire Barrier Descripti	on:]
Adjacent Fire Zones:	FA2-502-01	FA2-40 3 4-01	FA2	-604-01	Reinforced concret	e walls providing in excess of 3-hour	MIC-03-09-
(Primary Inter face	FA2-503-01	_		Roof		ility. Three hour fire rated door to area	00015
Listed See Table 9A-3	FA2-508-01	See Table 9A-3				nd penetrations to fire area are	
		See Table 9A-3				-	
For Complete Listing)	FA2-509-01				protected to 3-hour	fire resistance. This zone has	
		•	•		unprotected enonin	are with enatial congration to mitigate	

Potential Combustibles				
Item		Heat Release (Btu)		
	Panels	7.9E+05		

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	4.0E+03	
Maximum Anticipated Combustible Loading:	5.2E+03	

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 spread with adjacent zones in this fire area.

	Fire Impact to Zone				
	Suppression System Operates	Suppression System Fails to Op.			
	A quickly detected and	There is no safe-shutdown			
	suppressed fire in this room	circuit in this zone to be			
	will minimize fire damage to	damaged.			
	the safety-related equipment				
	consistent with GDC-3.				

Floor Area (ft^2)

200

Table 9A-2 Fire Hazard Analysis Summary (Sheet 190 of 306)

Fire Zone: **FA2-509-01** Building: Reactor Area Designation: FA2-509 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 4F Zone Designation: FA2-509-01 Non-Radioactive 804 9A-8 **Zone Westside Corridor** Fig: 3.6398 A,B,C,D Sect: Associated Safety Division(s)

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 Combu	ıstibles
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 Zone Combustible Summary			
	Btu/ft ²		
Anticipated Combustible Loading:	2.2E+04		
Maximum Anticipated Combustible	2. <mark>6</mark> 7E+04		
Loading:			

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Compression Drimon.	Fire Compression Dealum
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Floor Area (ft ²)
1,9 <u>50</u> 0

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	A fire has the potential to		
suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	damage 4 trains of remote safe shutdown functions, but plant operation can be controlled from Main Control Board.		

MIC-03-09-00015

MIC-03-09-

00015

F	Table 9	9A-2 Fire Haza	ird Anal	lysis Summ	ary (Sheet 191 of 3	306)	
Fire Zone: FA2-510-01 Building:	Reactor	Area Des	ignation:	FA2-510 Are	ea	Applicable Regulatory and Code Ref(s):	
Floor(s):	4F	Zone Des	ignation:	LRT Room		IBC, RG 1.189; NFPA 10, 14, 72 and 804	
Fig: Sect:	9A-8 3. 63 99	Associated Safety D	Division(s)		<u>€D</u>		MIC-03-09
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall FA1-101-24 FA2-410-02 FA2-415-01 FA2-509-01 FA2-510-02	Floor FA2-410-01		Ceiling Roof	fire resistive capab and all openings ar protected to 3-hour unprotected openir	e walls providing in excess of 3-hour ility. Three hour fire rated door to area nd penetrations to fire area are fire resistance. This zone has ngs with spatial separation to mitigate acent zones in this fire area.	
Potential Item Instrun		Release (Btu) 2.4E+05	Auto	Fire Detec	ction – Primary	Fire Detection - Backup Manual Fire Alarm Pull Station]
			Fire	Fire Suppre Hose Station	ession – Primary	Fire Suppression - Backup Portable Fire Extinguisher	
Fire Zone Com	nbustible Summa	ary	Flo	A qu sup	Fire pression System Operate uickly detected and pressed fire in this roo minimize fire damage t	A fire has the potential to- m damage safe-shutdown	MIC-03-09 00015
Anticipated Combustible Loa	ading:	Btu/ft ² 6.7E+02	Are (ft ²		safety-related equipme sistent with GDC-3.	train C. Train A, B and D remain free from the damage. There is no safe-shutdown circuit in this	
Maximum Anticipated Combu		1.1E+03	35	50		zone to be damaged.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 192 of 306) Fire Zone: **FA2-510-02** Building: Reactor Area Designation: FA2-510 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 4F Zone Designation: CRDM Cabinet Room 804 Fig: 9A-8 MIC-03-09-3.6399 Associated Safety Division(s) Sect: <u>€</u>D 00015 Wall Fire Barrier Description: Floor Ceiling MIC-03-09-FA2-214-07 Adjacent Fire Zones: FA2-407-03 Roof Reinforced concrete walls providing in excess of 3-hour 00015 FA2-210-21 (Primary Inter face FA2-410-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA2-410-02 and all openings and penetrations to fire area are FA2-42219-01 For Complete Listing) FA2-509-01 protected to 3-hour fire resistance. This zone has FA2-4232-01 See Table 9A-3 FA2-510-01 unprotected openings with spatial separation to mitigate fire spread with adjacent zones in this fire area. Potential Combustibles Item Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Lighting Transformer 6.6E+05 Automatic smoke Manual Fire Alarm Pull Station **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 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	3.4E+04			
Loading:				

Floor Area (ft²)

Fire Impact to ∠one				
Suppression System Operates	Suppression System Fails to Op.			
A quickly detected and	A fire has the potential to-			
suppressed fire in this room	damage safe shutdown			
will minimize fire damage to	functions associated with safety			
the safety-related equipment	train C. Train A, B and D romain			
consistent with GDC-3.	free from the damage. There is			
	no safe-shutdown circuit in this			
	zone to be damaged.			

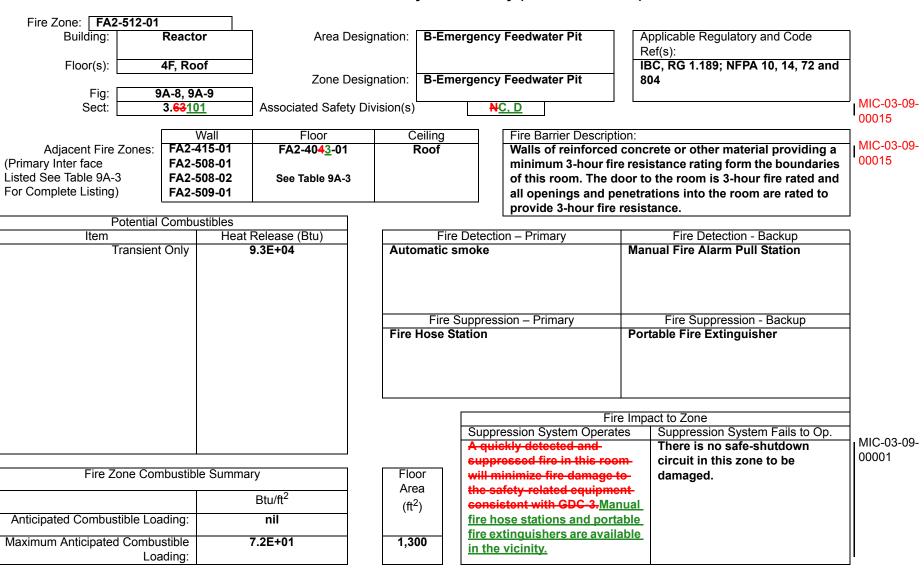
Table 9A-2 Fire Hazard Analysis Summary (Sheet 193 of 306) Fire Zone: **FA2-511-01** Building: Reactor Area Designation: R/B-4F Penetration Area (FA2-Applicable Regulatory and Code 511) Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 4F Zone Designation: R/B-4F Penetration Area (FA2-804 9A-8 Fig: 511-01) MIC-03-09-Sect: 3.1800 Associated Safety Division(s) D 00015 Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA1-101-25 FA2-411-01 Roof Walls of reinforced concrete or other material providing a (Primary Inter face FA2-208-01 minimum 3-hour fire resistance rating form the boundaries MIC-03-09-Listed See Table 9A-3 FA2-210-16 See Table 9A-3 of this room. The door to the room is 3-hour fire rated and 00015 For Complete Listing) FA2-210-17 all openings and penetrations into the room are rated to FA2-214-05 provide 3-hour fire resistance. FA2-214-05 Potential Combustibles Fire Detection - Primary Heat Release (Btu) Fire Detection - Backup Item Grease 3.3E+06 Automatic smoke Manual Fire Alarm Pull Station 4.2E+06 **High Voltage Cables** 3.2E+06 Low Voltage Cables Control Cables 5.6E+06 Instrumentation Cables 4.9E+06 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 (ft²)

Fire Impact to Zone				
Suppression System Operates	Suppression System Fails to Op.			
A quickly detected and	There is no safe-shutdown			
suppressed fire in this room	circuit in this zone to be			
will minimize fire damage to	damaged.			
the safety-related equipment	_			
consistent with GDC-3.				

Table 9A-2 Fire Hazard Analysis Summary (Sheet 194 of 306)



F: 7		JA-2 Tile Hazai	I A Alla	iyələ Gulli	mary (Sheet 195 of 3	,,,,,	
Fire Zone: FA2-513-01 Building: Reactor		Area Designation:		n: FA2-513 Area		Applicable Regulatory and Code Ref(s):]
Floor(s):	4F	Zone Desi	gnation:	FA2-513-0	1 Zone	IBC, RG 1.189; NFPA 10, 14, 72 and 804	
Fig: Sect: 3	9A-8 3. <mark>63</mark> 102	Associated Safety D	oivision(s))	N		MIC-03-09 00015
Adjacent Fire Zones:	Wall FA2-210-15	Floor FA2-420-02		Deiling 2-601-02	Fire Barrier Descripti	on: concrete or other material providing a	00015
•	FA2-409-02 FA2-507-01	.,,			minimum 3-hour fire of this room. The de	e resistance rating form the boundaries oor to the room is 3-hour fire rated and enetrations into the room are rated to	
	Combustibles						_
Item Transient		Release (Btu) 9.3E+04		Fire Det omatic smol	ection – Primary	Fire Detection - Backup Manual Fire Alarm Pull Station	
			Fire	Fire Supp Hose Statio	oression – Primary o n	Fire Suppression - Backup Portable Fire Extinguisher	
					Fire	e Impact to Zone	_
					uppression System Operate		
				SI	quickly detected and appressed fire in this roo	There is no safe-shutdown circuit in this zone to be	
Fire Zone Combustible Summ		ary			rill minimize fire damage to damaged.		
		Btu/ft ²	Ard (ft		e safety-related equipme onsistent with GDC-3.	nt	
Anticipated Combustible Load	ding:	nil					
Maximum Anticipated Combus Load	tible ding:	3.7E+02	25	50			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 196 of 306)

Fire Zone: **FA2-601-01** Building: Reactor Area Designation: FA2-601 Area Applicable Regulatory and Code IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Roof A-CCW Surge Tank Room Zone Designation: 804 9A-9 Fig: Associated Safety Division(s) В Sect: 3.68103

MIC-03-09-00015

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-414-01	FA2-504-01	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
11	
	Doutoble Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher
Fire Hose Station	Portable Fire Extinguisher
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)
300

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	damage the functions of A, B safeshutdown train. C, D trains remain free from the fire damage.	

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 197 of 306)

Fire Zone: **FA2-601-02** Building: Reactor Area Designation: FA2-601 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Roof C/V Purge Air Handling Unit Zone Designation: 804 9A-9 Fig: Room 3.610</u>3 Sect: Associated Safety Division(s) В

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	
FA2-414-01	FA2-504-01	See Table 9A-3
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 Combu	ustibles
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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible	3.1E+04
Loading:	

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
F: 0	
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	A fire has the potential to	
	suppressed fire in this room	damage the few functions of 2	
1	will minimize fire damage to	safeshutdown train. Two trains	
	the safety-related equipment	remain free from the fire	
	consistent with GDC-3.	damage.	
1			

Floor Area (ft^2)

2,700

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 198 of 306)

Fire Zone: FA2	2-602-01	_			
Building:	Reactor	Area Designation:	B-CCW Surge Tank R	loom	Applicable Regulatory and Code
		_	_		Ref(s):
Floor(s):	Roof				IBC, RG 1.189; NFPA 10, 14, 72 and
		Zone Designation:	B-CCW Surge Tank R	Room	804
Fig:	9A-9				
Sect:	3. 69 104	Associated Safety Division(s)	С		

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-110-01	FA2-503-01	Roof
FA2-604-01	FA2-509-01	

Fire Barrier Description:
Walls of reinforced concrete

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 Combu	ıstibles
Item	Heat Release (Btu)
Gasket Instruments	4.0E+04 7.9E+05 2.4E+06
High Voltage Cables Low Voltage Cables Control Cables	1.8E+06 3.2E+06
Instrumentation Cables	2.8E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.7E+04
Maximum Anticipated Combustible Loading:	3.3E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Companies Drimer	Fire Compression Bookup
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Floor
Area
(ft ²)
(11)
400

Fire Imp	act 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.
	-

Table 9A-2 Fire Hazard Analysis Summary (Sheet 199 of 306)

	Table	DA-2 FILE FIAZA	iiu Allaiy	ysis Suii	IIIIai	y (Sii	eet is	19 01 31	JOJ	
Fire Zone: FA2-603-01 Building: Reactor		Area Designation:		n: FA2-603 Area			R	Applicable Regulatory and Code Ref(s):		
Floor(s): Roof		Zone Designation:		: FA2-603-01 Area			3C, RG 1.189; NFPA 10, 14, 72 and 04			
Fig: Sect:	9A-9 3. 68 <u>105</u>	Associated Safety D	Division(s)		-	4			<u> </u>	
Adjacent Fire Zones: Primary Inter face isted See Table 9A-3 For Complete Listing)	Wall FA2-501-02 FA2-601-01 FA2-601-02	Floor FA2-507-01		eiling Roof		Walls minim of this	of rein num 3-l s room	our fire The do	onc resi	rete or other material providing a stance rating form the boundaries of the room is 3-hour fire rated and
	Combustibles							ur fire r		ations into the room are rated to tance.
Item		Release (Btu)		Fire De	tectio	n – Prir	mary	1		Fire Detection - Backup
Instrum High Voltage Ca Low Voltage Ca Control Ca Instrumentation Ca	ables ables ables	4.0E+05 1.3E+06 9.9E+05 1.8E+06 1.5E+06	Auto	matic smo			-		Mar	nual Fire Alarm Pull Station
			Fire h	Fire Sup Hose Station		on – P	rimary		Por	Fire Suppression - Backup table Fire Extinguisher
								Fire	Impa	act to Zone
								Operate		Suppression System Fails to Op.
Fire Zone Com	bustible Summa	ary	Floo	s	uppre	essed f		ind nis roon mage to		There is no safe-shutdown circuit in this zone to be damaged.
		Btu/ft ²	Are (ft ²	a t l	ne sat	ety-rel		quipmen		
Anticipated Combustible Loa	ding:	2.4E+04	(10	,				-		
Maximum Anticipated Combus Loa	stible ding:	2.9E+04	250)						

	lable	9A-2 Fire Haza	ard Analy	ysis Sun	imary (Sheet 20	O OT 306)	
Fire Zone: FA2-604-01 Building: Reactor		Area Designation:		n: FA2-604 Area			Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804
Floor(s): Roof		Zone Designation:		FA2-604-01 Area			
Fig: Sect:	9A-9 3. <u>10</u> 6 <mark>8</mark>	Associated Safety I	Division(s)	L	D		
Adjacent Fire Zones: Primary Inter face isted See Table 9A-3 for Complete Listing)	Wall FA2-110-01 FA2-505-01 FA2-509-01 FA2-512-01 FA2-602-01	Floor FA2-508-02 FA2-509-01		eiling Roof	minimum 3-h of this room.	forced cond our fire res The door t and penetr	crete or other material providing a istance rating form the boundaries o the room is 3-hour fire rated and ations into the room are rated to stance.
Potential (Combustibles	t Release (Btu)		Fire De	tection – Primary		Fire Detection - Backup
Instruments High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables		4.0E+05 1.3E+06 9.9E+05 1.8E+06 1.5E+06	Auto	matic smo		Ма	nual Fire Alarm Pull Station
			Fire I	Fire Sup Hose Station	oression – Primary on	Ро	Fire Suppression - Backup rtable Fire Extinguisher
							pact to Zone
				Α	uppression System quickly detected a uppressed fire in the	ınd	Suppression System Fails to Op. There is no safe-shutdown circuit in this zone to be
Fire Zone Com	bustible Summ		Floo Are	or w	rill minimize fire da ne safety-related ec	mage to	damaged.
Anticipated Combustible Loa	ding:	Btu/ft ² 2.4E+04	(ft ²		onsistent with GDC		
Maximum Anticipated Combus Loa	stible ding:	2.9E+04	25	0			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 201 of 306)

Fire Zone: FA3-101-01

Building: Power Source

Floor(s): B1F, B1MF

Fig: 9A-11

Area Designation: A-Essential Chiller Unit & Pump Room

Room

A-Essential Chiller Unit & Pump

Α

Applicable Regulatory and Code Ref(s):

Zone Designation:
Fig: 9A-11
Sect: 3.1079 Associated Safety Division(s)

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-101-01	FA3-104-02	FA3-103-02
FA2-102-01	FA3-106-01	FA3-103-03
FA2-111-01	FA3-128-01	FA3-104-042
FA3-102-01	FA7-101-01	FA3-104-03
FA3-103-02		

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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00015

Potential Combu	stibles
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	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>65</u> E+04
Maximum Anticipated Combustible Loading:	3. <u>40</u> E+04

Floor Area (ft²)

Fire Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire in this fire zone has the
suppressed fire in this room	potential to cause functional
will minimize fire damage to	damage of safe-shutdown
the safety-related equipment	functions associated with safety
consistent with GDC-3.	train A. Train B, C and D remain
	free from the damage.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 202 of 306)

Fire Zone: **FA3-102-01 B-Essential Chiller Unit & Pump** Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF Zone Designation: **B-Essential Chiller Unit & Pump** 804 9A-11 Fig: Room Sect: 3.7108 Associated Safety Division(s) В

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-101-02	FA3-106-01	FA3-103-03
FA2-111-01	FA7-1 <mark>0</mark> 28-01	FA3-104-03
FA3-101-01		
FA3-10 3 6-01		
FA3-103-02		
FA3-104-01		

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.

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Potential Combu	ıstibles
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

Floor Area (ft ²)
1,2 <mark>0</mark> 50

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 Impa	act to ∠one
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire in this fire zone has the
suppressed fire in this room	potential to cause functional
will minimize fire damage to	damage of safe-shutdown
the safety-related equipment	functions associated with safety
consistent with GDC-3.	train B. Train A, C and D remain
	free from the damage to achieve
	safe-shutdown.

Fire Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>65</u> E+04
Maximum Anticipated Combustible Loading:	3. <mark>40</mark> E+04

Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 203 of 306)

Fire Zone: **FA3-103-01 Power Source** Area Designation: B-Class 1E GTG Room Applicable Regulatory and Code Building: Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF Zone Designation: **B-GTG Auxiliary Component** 804 Fig: 9A-11 Room MIC-03-09-Sect: 3.72109 Associated Safety Division(s) В 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA3-102-01 FA3-127-01 FA3-103-034 Reinforced concrete walls providing in excess of 3-hour 00015 FA3-103-02 (Primary Inter face FA3-1428-01 FA3-104-03 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-104-01 FA3-118-01 and all openings and penetrations to fire area are For Complete Listing) FA3-105-03 protected to 3-hour fire resistance. This zone has FA3-106-01 unprotected openings with adjacent zone (FA3-103-02) in FA3-118-01 this fire area. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item Lube Oil 4.0E+05 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 Fails to Op. Suppression System Operates A fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor functions associated with safety will minimize fire damage to Area the safety-related equipment train B. Train A, C and D remain Btu/ft² consistent with GDC-3. free from the damage to achieve (ft^2) Anticipated Combustible Loading: 6.1E+02 A fire will be confined within safeshutdown. the fire zone due to the low fire Maximum Anticipated Combustible 8.8E+02 650 loading.

	Table 9	PA-2 Fire Ha	zard Anal	lysis Su	ımmar	y (Sheet 204 of 3	806)		
Fire Zone: FA3-103-02									
	ower Source	Area D	esignation:	B-Class	s 1E GT	G Room	App Ref	olicable Regulatory and Code	
Floor(s):	B1MF	j						C, RG 1.189; NFPA 10, 14, 72 and	
Fig:	9A-11	Zone D	esignation:	B-GTG	Fuel Pi	ping Area	804	1	
Sect:	3. 72 109	Associated Safet	y Division(s)			В			MIC-03-09
	Wall	Floor	1 0	Ceiling		Fire Barrier Description	on.		00015
Adjacent Fire Zones:	FA3-10 2 1-01	FA3-1041-01		-10 <mark>4</mark> <u>3</u> -03				providing in excess of 3-hour	MIC-03-09
(Primary Inter face Listed See Table 9A-3	FA3 103 01							ree hour fire rated door to area	00015
For Complete Listing)	FA3-104-02 FA3-119-01	See Table 9A 3	,					etrations to fire area are sistance. This zone has	
3,	FA3-128-01					-		h adjacent zone (FA3-103-01) in	
Potentia	Combustibles				Ĺ	tills life area.			
Item	Heat	Release (Btu)				n – Primary		Fire Detection - Backup	
Transien	it Offiny	9.3E+04	Auto	omatic sm	ioke		Wanu	ial Fire Alarm Pull Station	
			Fire			on – Primary	Doute	Fire Suppression - Backup	
			Fire	Hose Stat	tion		Porta	ble Fire Extinguisher	
						Fire	e Impac	et to Zone	
						ssion System Operate	es	Suppression System Fails to Op.	
						kly detected and		A fire has the potential to	
Fire Zone Co	mbustible Summa	ary	Flo	or	will mi	essed fire in this room nimize fire damage to	0	damage the safe-shutdown functions associated with safety	
		Btu/ft ²				train B. Train A, C and D remain free from the damage to achieve			
Anticipated Combustible Lo	ading:	nil	,			vill be confined withi		safe-shutdown.	
Maximum Anticipated Comb	ustible ading:	<u>4</u> .7E+0 <u>23</u>	26	n	loading	zone due to the low g.	iire		MIC-03-09 00015

Fire Detection - Backup

Table 9A-2 Fire Hazard Analysis Summary (Sheet 205 of 306)

Fire Zone: **FA3-103-03** Building: **Power Source** Area Designation: **B-Class 1E GTG Room** Applicable Regulatory and Code Ref(s): Floor(s): 1F, Roof IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: **B-Class 1E GTG Room** 804 Fig: 9A-12 3.72109 Associated Safety Division(s) Sect: В

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	
FA3-320-01	FA3-103-0 1 2	
FA3-104-03	FA3-10 6 4-0 1 2	See Table 9A-3
FA3-130-01		

Fire Barrier Description:

Fire Detection - Primary

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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00015

MIC-03-09-

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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2.1 3.0E+05	
Maximum Anticipated Combustible Loading:	2.5 3.6E+05	
Loading:		

File Detection - Filmary	rife Detection - backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Floor Area (ft ²)
2,400 <u>1,600</u>

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly suppressed fire in	A fire has the potential to cause	
this area would minimize	functional damage of safe-	
damage to safety-related	shutdown functions associated	
equipment consistent with	with safety train B. Train A, C	
GDC-3.	and D remain free from the	
	damage to achieve	
	safeshutdown.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 206 of 306) MIC-03-09-00015 Fire Zone: **FA3-103-04 Power Source B-Class 1E GTG Room** Applicable Regulatory and Code Building: Area Designation: (East) IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): <u>1F</u> Zone Designation: **B-Class 1E Gas Turbine** 804 Fig: 9A-12 **Generator Control Board Room** 3.109 Sect: Associated Safety Division(s) Fire Barrier Description: Wall Ceiling Floor FA3-104-04 FA3-103-01 FA3-104-03 Reinforced concrete walls providing in excess of 3-hour Adjacent Fire Zones: (Primary Inter face FA3-105-02 FA3-104-01 Roof fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-130-01 FA3-118-01 and all openings and penetrations to fire area are For Complete Listing) FA3-127-01 protected to 3-hour fire resistance. This zone has unprotected openings with adjacent zone in this area. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item 3.2E+06 Manual Fire Alarm Pull Station **Panels** Automatic smoke Low Voltage Cables 7.0E+06 **Control Cables** 8.9E+06 Instrumentation Cables 7.8E+06 Fire Suppression – Primary Fire Suppression - Backup Fire Hose Station Portable Fire Extinguisher Fire Impact to Zone Suppression System Fails to Op. Suppression System Operates A quickly detected and A fire has the potential to suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary will minimize fire damage to Floor functions associated with safety Area the safety-related equipment train B. Btu/ft² consistent with GDC-3. Train A, C and D remain free (ft^2) Anticipated Combustible Loading: from the damage to achieve 2.5E+04 safe-shutdown. 3.0E+04 Maximum Anticipated Combustible 1,100 Loading:

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 Floor(s): B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: A-GTG Auxiliary Component 804 Fig: 9A-11 Room MIC-03-09-Sect: 3.73110 Associated Safety Division(s) Α 00015 MIC-03-09-Wall FloorWall Ceiling Fire Barrier Description: 00015 FA3-102-01 Adjacent Fire Zones: -FA3-129-01 FA3-103-024 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA3-103-01 FA3-104-024 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-106-01 FA3-1198-01 and all openings and penetrations to fire area are For Complete Listing) FA3-118-01 FA3-129-01 protected to 3-hour fire resistance. This zone has FA3-128-01 unprotected openings with adjacent zone (FA3-104-02) in this fire area. Fire Detection - Primary Fire Detection - Backup Manual Fire Alarm Pull Station **Automatic smoke**

Potential Combustibles		
Item		Heat Release (Btu)
	Lube Oil	4.0E+05

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	6.1E+02	
Maximum Anticipated Combustible Loading:	8.8E+02	

Cira Zana Camahuatibla Cumamaam

Floor Area (ft²)

Fire Hose

Fire S	Suppression – Primary		Fire Suppression - Backup	
ose Station		Po	Portable Fire Extinguisher	
	Fire Impact to Zone Suppression System Operates Suppression System Fails to Operate Suppression System Fails to Operate		pact to Zone	
			Suppression System Fails to Op.	

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 A. Train B, C and D remain free from the damage to achieve safe-shutdown.

Loading:

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 208 of 306) Fire Zone: **FA3-104-02 Power Source** Area Designation: A-Class 1E GTG Room Applicable Regulatory and Code Building: Floor(s): B1F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: A-GTG Fuel Piping Area 804 Fig: 9A-11 MIC-03-09-Associated Safety Division(s) Sect: 3.73110 Α 00015 Wall Fire Barrier Description: Floor Ceiling MIC-03-09-Adjacent Fire Zones: FA3-101-01 FA3-1041-01 FA3-103-03 Reinforced concrete walls providing in excess of 3-hour 00015 (Primary Inter face FA3-103-02 FA3-104-03 fire resistive capability. Three hour fire rated door to area MIC-03-09-Listed See Table 9A-3 FA3-105-01 and all openings and penetrations to fire area are 00015 For Complete Listing) FA3-119-01 protected to 3-hour fire resistance. This zone has FA7-401-01 unprotected openings with adjacent zone (FA3-104-01) in this fire area. Potential Combustibles Item Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Transient Only 9.3E+04 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 A fire has the potential to suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety Area the safety-related equipment train A. Train B, C and D remain Btu/ft² consistent with GDC-3. free from the damage to achieve (ft^2) Anticipated Combustible Loading: nil A fire will be confined within safe-shutdown. the fire zone due to the low fire MIC-03-09-Maximum Anticipated Combustible 9.31.9E+023 1050 loading.

Table 9A-2 Fire Hazard Analysis Summary (Sheet 209 of 306)

Fire Zone: **FA3-104-03** Building: **Power Source** Area Designation: A-Class 1E GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): 1F, Roof Zone Designation: A-Class 1E GTG Room 804 9A-12 Fig: Sect: 3.73110 Associated Safety Division(s) Α

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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	FA3-102-01	
FA2-202-01	FA3-103-01	
FA3-103-03	FA3-10 <mark>3</mark> 4-02	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 Combu	ıstibles
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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	<u>23</u> .1E+05	
Maximum Anticipated Combustible	2.5 3.7E+05	
Loading:		

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 suppressed fire in	A fire in this fire zone has the				
this area would minimize	potential to damage the				
damage to safety-related	safeshutdown functions				
equipment consistent with	associated with safety train A.				
GDC-3.	Train B, C and D remain free				
	from the damage to achieve				
	safe-shutdown.				

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Floor Area (ft²)

2,400 1,550

						_
	Table 9	A-2 <u>Fire Haza</u>	ard Analysis S	Summary (Sheet 210 of 3	<u>306)</u>	MIC-03 00015
Fire Zone: FA3-104-04						00013
	er Source	Area Des	signation: A-Cla	ss 1E GTG Room	Applicable Regulatory and Code	7
	East)				Ref(s):	
Floor(s):	1F				IBC, RG 1.189; NFPA 10, 14, 72 and	1
		Zone Des	signation: A-Cla	ss 1E Gas Turbine	804	
<u>Fig:</u> 9	A-12	1		rator Control Board Room		
Sect: 3	<u>3.110</u>	Associated Safety	Division(s)	<u>A</u>]
Г	Wall	Floor	Ceiling	Fire Barrier Descript	tion:	\neg
Adjacent Fire Zones:	A3-103-04	FA3-104-01	FA3-104-03		te walls providing in excess of 3-hour	1
	A3-104-03	FA3-129-01	Roof		pility. Three hour fire rated door to area	
	A3-105-02			-	nd penetrations to fire area are	
	A3-130-01				r fire resistance. This zone has	
					ngs with adjacent zone in this area.	
Potential Co	ombustibles			<u> </u>		4
Item		Release (Btu)	Fire	e Detection – Primary	Fire Detection - Backup	7
<u> </u>		3.2E+06	Automatic s		Manual Fire Alarm Pull Station	
Low Voltage Cab	<u>les</u>	7.0E+06				
Control Cab		8.9E+06				
Instrumentation Cab	oles	7.8E+06				
				<u> Suppression – Primary</u>	Fire Suppression - Backup	
			Fire Hose S	<u>tation</u>	Portable Fire Extinguisher	
					to Improper to Zone	_
					re Impact to Zone	4
				Suppression System Operation		4
				A quickly detected and	A fire has the potential to	
Fire Zone Comb	uotiblo Cumana	100.6	Floor	suppressed fire in this roo		
Fire Zone Combi	ustible Sullima	<u>ıı y</u>	Floor	will minimize fire damage		
		Btu/ft ²	<u>Area</u>	the safety-related equipme		
			<u>(ft²)</u>	consistent with GDC-3.	Train B, C and D remain free	
Anticipated Combustible Loadi	ng:	3.6E+04			from the damage to achieve	
Maximum Anticipated Combusti	ble	4.3E+04	750		safe-shutdown.	
Loadi			100			
LUAUI	ıı <u>y.</u>					

Table 9A-2 Fire Hazard Analysis Summary (Sheet 211 of 306) Fire Zone: **FA3-105-01** Building: **Power Source** Area Designation: A-AAC GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1MF Zone Designation: A-AAC Power Source Starter 804 Fig: 9A-11 **Battery Room** MIC-03-09-Sect: 3.74111 Associated Safety Division(s) 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA3-104-02 FA3-1016-01 FA3-105-02 Reinforced concrete walls providing in excess of 3-hour 00015 (Primary Inter face FA3-105-03 FA3-115-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-106-01 and all openings and penetrations to fire area are For Complete Listing) FA3-117-01 protected to 3-hour fire resistance. This zone has FA3-125-01 unprotected openings with spatial separation to mitigate FA3-1429-01 fire spread with adjacent zones in this fire area. Potential Combustibles Fire Detection - Backup Heat Release (Btu) Fire Detection - Primary Item Panels 3.0E+06 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 There is no safe-shutdown suppressed fire in this room circuit in this zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. Area the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) MIC-03-09-Anticipated Combustible Loading: 1.07.5E+043 00015 Maximum Anticipated Combustible 49.2E+043 3400 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 212 of 306)

Fire Zone: **FA3-105-02** Building: **Power Source** Area Designation: A-AAC GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): 1F, Roof Zone Designation: A-AAC GTG Room 804 9A-12 Fig: Sect: 3.74111 Associated Safety Division(s) NA A

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	
FA3-106-01	FA3-106-01	See Table 9A-3
FA3-125-01	FA3-117-01	
FA2-151-03	FA3-11 6 9-01	
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.

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00015

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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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2. 5 2E+05	
Maximum Anticipated Combustible Loading:	3.0 2.7E+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 Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown		
suppressed fire in this room	circuit in this zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment			
consistent with GDC-3.			

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Floor Area (ft²)

2,10350

Table 9A-2 Fire Hazard Analysis Summary (Sheet 213 of 306)

	Table	IA-2 FIFE Hazar	d Anai	ysis Sum	mary (Sneet 213 of 3	506)		
Fire Zone: FA3-105-03								
		Area Desig	gnation:	A-AAC GT	G Room		pplicable Regulatory and Code	
FI (a)	DAME	-					ef(s):	_
Floor(s):	B1MF	 Zone Design		ignation: A-AAC Fuel Piping Room		IBC, RG 1.189; NFPA 13, 14, 72 and 804		
Fig:	9A-12		griation.	A-AAC Fu	er Pipilig Koolli	0	04	
Sect:	3. 74 111	Associated Safety D	ı ivision(s)		N			MIC-03-09-
			. ,					00015
	Wall	Floor		eiling	Fire Barrier Descripti			MIC-03-09-
	Adjacent Fire Zones: FA3-103-01 FA3-11-6-01		FA3			te walls providing in excess of 3-hour		00015
(Primary Inter face Listed See Table 9A-3	FA3-105-01 FA3-11 <mark>7</mark> 8-01	<u>FA3-113-01</u>	Soo T	able 9A-3		apability. Three hour fire rated door to area		00010
For Complete Listing)	FA7-403-01		See 1	able 3A-3			resistance. This zone has	
	FA3-125-01						ith spatial separation to mitigate	
							zones in this fire area.	
Potential	Combustibles							_
Item		Release (Btu)			ection – Primary		Fire Detection - Backup]
Transien	t Only	9.3E+04	Automatic smoke		Mar	nual Fire Alarm Pull Station		
			Fire Suppression – Prin			Fire Suppression - Backup]
			Fire I	Hose Statio	n	Por	table Fire Extinguisher	
								1
							act to Zone	1
					ppression System Operat	es	Suppression System Fails to Op.]
					quickly identified and		There is no safe-shutdown	
Fire Zone Con	nbustible Summa	n/	Floo		tinguished fire in this ro ould minimize the damag		circuit in this zone to be	
The Zone Con	iibustible Sullille	ı y	Are		om and undesirable imp		damaged.	
		Btu/ft ²	(ft ²	-	plant operation.	acı		
Anticipated Combustible Loa	ading:	nil	(11	, o.	France obstances			
Maximum Anticipated Combu	ıstible	1.9E+03	50	 				
Loa	ading:]

Fire Detection - Backup

Manual Fire Alarm Pull Station

Table 9A-2 Fire Hazard Analysis Summary (Sheet 214 of 306)

Fire Zone: **FA3-106-01** Building: **Power Source** Area Designation: FA3-106 Area Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to 1F Zone Designation: FA3-106-01 Corridor 804 Fig: 9A-11, 9A-12 Sect: 3.75112 Associated Safety Division(s) BN

Automatic smoke

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-111-01	FA3-116-01	FA3-103-03
FA3-101-01	FA3-103-01	FA3-105-01
FA2-114-03	FA3-104-01	FA3-105-02
FA3-102-01		FA3-1 <mark>42</mark> 7-01
FA3-103-01	See Table 9A-3	FA3-128-01
		FA3-129-01
		FA3-130-01

Fire Barrier Description:

Fire Detection - Primary

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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00015

Potential Combustibles		
Item	Heat Release (Btu)	
Transient Only	9.3E+04	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible	6.9 <u>5.5</u> E+01
Loading:	

Fire Suppression – Primary	Fire Suppression - Backup	
Fire Hose Station	Portable Fire Extinguisher	
Fire Impact to Zone		

Floor Area (ft ²)
(π-)
1, 35 <u>70</u> 0

Fire Impact to Zone			
Suppression System Fails to Op.			
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** Floor(s): B1F, B1MF Fig: 9A-11 3.77113

C-Essential Chiller Unit & Pump Area Designation: Room Zone Designation: C-Essential Chiller Unit & Pump

С

Fire Detection - Primary

Room

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
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		

Associated Safety Division(s)

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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00015

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	

Floor Area (ft ²)
1,2 <mark>0</mark> 50

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	A fire in this zone has the	
suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	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. <u>65</u> E+04
Maximum Anticipated Combustible Loading:	3. <u>40</u> E+04

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 216 of 306)

Fire Zone: **FA3-109-01** Building: **Power Source** Area Designation: C-Class 1E GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF **C-GTG Auxiliary Component** Zone Designation: 804 9A-11 Fig: Room 3.78114 Sect: Associated Safety Division(s) С

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	
Heat Release (Btu)	Item
4.0E+05	Lube Oil
4.02.703	Edge Oil

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible	8.8E+02
Loading:	

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

Floor	
Area	
(ft ²)	
650	

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage the safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train C. Train A, B and D remain
consistent with GDC-3. A fire	free from the damage to achieve
will be confined within the fire	safeshutdown.
zone due to the low fire	
loading.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 217 of 306)

Fire Zone: **FA3-109-02** Building: **Power Source** Area Designation: C-Class 1E GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1MF Zone Designation: C-GTG Fuel Piping Area 804 Fig: 9A-11 3.78114 Associated Safety Division(s) С Sect:

Fire Detection – Primary

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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		
FA3-111-02	See Table 9A-3	
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.

Fire Detection - Backup

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04

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. 7 3E+02

Floor
Area
(ft ²)
()
350

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train C. Train A, B and D remain	
consistent with GDC-3. A fire	free from the damage to achieve	
will be confined within the fire	safeshutdown.	
zone due to the low fire		
loading.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 218 of 306)

Fire Zone: **FA3-109-03** Building: **Power Source** Area Designation: C-Class 1E GTG Room Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): 1F, Roof C-Class 1E GTG Room Zone Designation: 804 9A-12 Fig: Sect: 3.78114 Associated Safety Division(s) С

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	l Ceiling
FA2-110-01	EAO 444 04	FA0 44 4 04
FA2-110-01	FA3-111-01	FA3-114-01
FA2-206-01	FA3-109-01	Roof
1 AZ-200-0 1	FA3-103-01	Kooi
FA3-111-03	FA3-110-01	
	170-110-01	
FA3-113-02	FA3-112-01	See Table 9A-3
	1710 112 01	000 10010 0710

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.1 1.9E+05
Maximum Anticipated Combustible	2. <mark>5</mark> 2E+05
Loading:	

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

	Suppression System Operates	Suppression System Fails to Op.
	A quickly suppressed fire in	A fire has the potential to
	this area would minimize	damage safe-shutdown
Floor	damage to safety-related	functions associated with safety
Area	equipment consistent with	train C. Train A, B and D remain
(ft ²)	GDC-3.	free from the damage.
, .		
2,4700		
∠, <u>⊶</u> 00		

Fire Impact to Zone

Table 9A-2 Fire Hazard Analysis Summary (Sheet 219 of 306)

Fire Zone: **FA3-110-01 D-Essential Chiller Unit & Pump** Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF Zone Designation: **D-Essential Chiller Unit & Pump** 804 9A-11 Fig: Room 3.79115 Sect: 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
FA2-108-01	FA3-112-01	FA3-109-03
FA2-110-01	FA7-104-01	FA3-111-03
FA2-112-01		
FA3-108-01		

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	1.4E+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
Instrumentation Cables	7.4E+06

Fire Detection - Backup
Manual Fire Alarm Pull Station
F: 0
Fire Suppression - Backup
Portable Fire Extinguisher

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>62</u> E+04
Maximum Anticipated Combustible Loading:	3.1 2.7E+04
Loading.	

Floor Area
(ft ²)
1, 2 400

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	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 220 of 306)

Fire Zone: **FA3-111-01** Building: **Power Source** Area Designation: **D-Class 1E GTG Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, B1MF **D-GTG Auxiliary Component** Zone Designation: 804 Fig: 9A-11 Room Sect: 3.80116 Associated Safety Division(s) D

Automatic smoke

Fire Hose

Fire Detection - Primary

the safety-related equipment

A fire will be confined within the fire zone due to the low fire

consistent with GDC-3.

loading.

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.

Fire Detection - Backup

Manual Fire Alarm Pull Station

train D. Train A, B and C remain

free from the damage.

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00015

Po	Potential Combustibles	
Item		Heat Release (Btu)
	Lube Oil	4.0E+05

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	6.1E+02
Maximum Anticipated Combustible	8.8E+02
Loading:	

Floor
Area
(ft ²)
650

Fire Suppression - Backup
Portable Fire Extinguisher
e Impact to Zone
es Suppression System Fails to Op.
A fire has the potential to
m damage safe-shutdown
functions associated with safety

Table 9A-2 Fire Hazard Analysis Summary (Sheet 221 of 306) Fire Zone: **FA3-111-02** Building: **Power Source** Area Designation: **D-Class 1E GTG Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: **D-GTG Fuel Piping Area** 804 Fig: 9A-11 MIC-03-09-3.80116 Associated Safety Division(s) D Sect: 00015 Wall Floor Ceiling Fire Barrier Description: FA3-109-02 Reinforced concrete walls providing in excess of 3-hour Adjacent Fire Zones: FA3-111-01 FA3-113-03 MIC-03-09-FA3-113-01 (Primary Inter face FA3-112-01 fire resistive capability. Three hour fire rated door to area 00015 Listed See Table 9A-3 FA3-124-01 and all openings and penetrations to fire area are MIC-03-09-For Complete Listing) FA7-405-01 protected to 3-hour fire resistance. This zone has 00015 FA3-131-04 unprotected openings with adjacent zone (FA3-111-01) in FA7-104-01 this fire area.

Potential Combustibles	
Item	Heat Release (Btu)
Transient Only	9.3E+04
	1

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	1. 9 <u>0</u> E+03

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

Floor
Area
(ft ²)
(11)
5 100

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train D. Train A, B and C remain
consistent with GDC-3.	free from the damage.
A fire will be confined within	_
the fire zone due to the low fire	
loading.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 222 of 306)

Fire Zone: FA3-111-03

Building: Power Source

Floor(s): 1F, Roof

Fig: 9A-12

3.80116

Area Designation: D-Class 1E GTG Room

Zone Designation: D-Class 1E GTG Room

D

Fire Detection - Primary

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804

Fire Detection - Backup

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

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

Associated Safety Division(s)

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 Combu	ıstibles
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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.1 1.8E+05
Maximum Anticipated Combustible	2. <mark>5</mark> 1E+05
Loading:	

Fire Detection – Primary	rife Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Compression Drives	Fire Compression Bookun
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

_
ct to Zone
Suppression System Fails to Op.
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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Floor Area (ft²)

2,40850

Table 9A-2 Fire Hazard Analysis Summary (Sheet 223 of 306)

Fire Zone: **FA3-112-01 Power Source** Area Designation: FA3-112 Area Applicable Regulatory and Code Building: Ref(s): B1F to 1F Floor(s): IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: FA3-112-01 Corridor 804 Fig: 9A-11, 9A-12 MIC-03-09-Sect: 3.81117 Associated Safety Division(s) С 00015 Wall Fire Barrier Description: Floor Ceiling Adjacent Fire Zones: FA2-112-01 FA3-120-01 FA3-109-03 Walls of reinforced concrete or other material providing a MIC-03-09-(Primary Inter face FA3-108-01 FA3-134-01 FA3-113-01 minimum 3-hour fire resistance rating form the boundaries 00015 Listed See Table 9A-3 FA3-109-01 FA3-111-02 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA3-110-01 See Table 9A-3 FA3-113-02 all openings and penetrations into the room are rated to MIC-03-09-FA3-1232-01 provide 3-hour fire resistance. 00015 Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Manual Fire Alarm Pull Station Transient Only 9.3E+04 Automatic smoke 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 A fire has the potential to suppressed fire in this room damage safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety Area the safety-related equipment train C. Train A, B and D remain Btu/ft² consistent with GDC-3. (ft^2) free from the damage. Anticipated Combustible Loading: nil MIC-03-09-Maximum Anticipated Combustible 6.97.4E+01 1,3250 00015 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 224 of 306) Fire Zone: **FA3-113-01** Building: **Power Source** Area Designation: **B-AAC GTG Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1MF Zone Designation: B-AAC Power Source Starter 804 Fig: 9A-11 **Battery Room** MIC-03-09-Sect: 3.82118 Associated Safety Division(s) 00015 Wall Floor Ceiling Fire Barrier Description: MIC-03-09-Adjacent Fire Zones: FA3-111-02 FA3-112-01 FA3-113-02 Reinforced concrete walls providing in excess of 3-hour 00015 FA3-112-01 (Primary Inter face FA3-121-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-113-03 FA3-135-01 and all openings and penetrations to fire area are For Complete Listing) FA3-123-01 protected to 3-hour fire resistance. This zone has MIC-03-09-FA3-124-01 unprotected openings with spatial separation to mitigate 00015 fire spread with adjacent zones in this fire area. FA3-131-01 FA7-104-01

Potential Combu	etibles
Item	
	Heat Release (Btu)
Panels	3.0E+06

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.0 8.5E+04 <u>3</u>
Maximum Anticipated Combustible	1. 2 1E+04
Loading:	

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fig. 0	Fig. 0
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Floor Area (ft ²)
3 <u>05</u> 0

Fire Impact to Zone						
Suppression System Operates	Suppression System Fails to Op.					
A quickly detected and	There is no safe-shutdown					
suppressed fire in this room	circuit in this zone to be					
will minimize fire damage to	damaged.					
the safety-related equipment						
consistent with GDC-3.						

Table 9A-2 Fire Hazard Analysis Summary (Sheet 225 of 306)

Fire Zone: FA3-113-02

Building: Power Source

Floor(s): 1F, Roof

Fig: 9A-12

Area Designation: B-AAC GTG Room

Zone Designation: B-AAC GTG Room

Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and 804

Fig: **9A-12** Sect: **3.82**118

Associated Safety Division(s)

С

MIC-03-09-00015

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00015

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	
FA3-126-01	FA3-120-01	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) Battery 3.4E+07 Instruments 1.3E+06 3.1E+08 Lube Oil **Panels** 3.2E+06 1.9E+05 Rubber **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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2. <u>51</u> E+05	
Maximum Anticipated Combustible Loading:	3.0 2.6E+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

Floor Area
(ft ²)
2, 10 450

Fire Impact to Zone						
Suppression System Operates	Suppression System Fails to Op.					
A quickly detected and	There is no safe-shutdown					
suppressed fire in this room	circuit in this zone to be					
will minimize fire damage to	damaged.					
the safety-related equipment						
consistent with GDC-3.						

		Т	able 9	A-2 Fire Ha	zard An	alysis	Summ	ary (Sheet 226	of 306)		
Fire Zone: FA: Building:		wer Sour	ce	Area D	esignation	n: B-A A	AC GTG	Room		applicable Regulatory and Code]
Floor(s):		B1MF 9A-12		Zone Designation:		esignation: B-AAC Fuel Piping Room		IE	IBC, RG 1.189; NFPA 13, 14, 72 and 804		
Fig: Sect:		3. 74 <u>118</u>		Associated Safet	y Division	(s)		N			MIC-03-09 00015
Adjacent Fire (Primary Inter face Listed See Table 9A- For Complete Listing	3	FA3-113 FA3-123 FA7-406 Combusti	3-01 3-01 3-01	Floor FA3-121-01	F	Ceiling A3-113-0	2	fire resistive ca and all opening protected to 3-h unprotected open	crete wal pability. I s and pe nour fire i enings w	Ils providing in excess of 3-hour Three hour fire rated door to area netrations to fire area are resistance. This zone has vith spatial separation to mitigate t zones in this fire area.	MIC-03-09 00015
Item	Olemia	Combusti		Release (Btu)		Fir	e Detect	ion – Primary		Fire Detection - Backup]
					Fii	Fire re Hose S		ssion – Primary	Por	Fire Suppression - Backup rtable Fire Extinguisher	
								ression System Op	erates	act to Zone Suppression System Fails to Op.	1
							-	ickly detected and		There is no safe-shutdown	
Fire Z	one Com	bustible	Summa			Floor Area	will r	oressed fire in this minimize fire dama cafety-related equip	ge to	circuit in this zone to be damaged.	
				Btu/ft ²	-	(ft ²)		istent with GDC-3.			
Anticipated Combus		•		nil							
Maximum Anticipate		stible iding:		1.9E+03		50					

		Table 9	A-2 Fire Haz	ard Anal	ysis Sı	umma	ry (Shee	t 227 of 3	06)		
Fire Zone: FA3-114 Building: Floor(s):	Power So 1MF		_	signation:	Cable 1	•			R IE	pplicable Regulatory and Code ef(s): 3C, RG 1.189; NFPA 10, 14, 72 and 04	
Fig: Sect:	9A-12 3. 83 <u>11</u>		Associated Safety	Division(s))		N				MIC-03-0 00015
Adjacent Fire Zon Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2-1 FA2-1 FA2-3	Vall 08-01 10-01 321-01 09-03	Floor FA3-109-03 FA3-111-03		Ceiling Roof Table 9A-3	3	Walls of minimun of this ro all openi	n 3-hour fire oom. The do	conc resi or to netra	rete or other material providing a stance rating form the boundaries the room is 3-hour fire rated and ations into the room are rated to tance.	
Item High Volta Low Volta	ge Cables rol Cables	Heat	Release (Btu) 7.1E+06 3.4E+07 7.6E+07	Auto	Fire I omatic sn		on – Primai			Fire Detection - Backup nual Fire Alarm Pull Station	
				Fire	Fire Si Hose Sta		ion – Prim	ary	Por	Fire Suppression - Backup table Fire Extinguisher	_
							ession Sys	tem Operate		act to Zone Suppression System Fails to Op. There is no safe-shutdown	_ - -
Fire Zone	Combustible	e Summa		Flo Are	-	suppr will m	essed fire inimize fir	in this roor e damage to ed equipmen)	circuit in this zone to be damaged.	
Anticipated Combustible	e Loading:	8	Btu/ft ² -67.9E+04	(ft			stent with				MIC-03-09
Maximum Anticipated Co	mbustible Loading:	4	.0 9.5E+05	1, 55	<u>70</u> 0						00015

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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): Floor(s): B1F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: A-Class 1E Battery Room 804 Fig: 9A-11 MIC-03-09-Associated Safety Division(s) Sect: 3.84120 Α 00015 Wall Fire Barrier Description: Floor Ceiling MIC-03-09-Adjacent Fire Zones: FA3-106-01 FA3-105-01 Walls of reinforced concrete or other material providing a 00015 FA3-105-03 (Primary Inter face FA2-121-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-116-01 FA3-117-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA3-132-01 FA3-129-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item High Voltage Cables 3.2E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 2.4E+06 4.2E+06 Control Cables 3.7E+06 Instrumentation Cables Batterv 5.7E+07 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 fire has the potential to A quickly detected and suppressed fire in this room damage safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety Area the safety-related equipment train A. Train B. C and D remain Btu/ft² consistent with GDC-3. free from the damage. (ft²) Anticipated Combustible Loading: 1.2E+05 Maximum Anticipated Combustible 1.4E+05 600 Loading:

MIC-03-09-

MIC-03-09-

00015

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 229 of 306) Fire Zone: **FA3-116-01** Building: **Power Source** Area Designation: **B-Class 1E Battery Room** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: **B-Class 1E Battery Room** 804 Fig: 9A-11 Sect: 3.85121 Associated Safety Division(s) В Wall Ceiling Fire Barrier Description: Floor FA3-105-021 Walls of reinforced concrete or other material providing a Adjacent Fire Zones: FA3-106-01 (Primary Inter face FA3-115-01 FA3-1065-043 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-133-01 FA3-125-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) 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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	1.2E+05	
Maximum Anticipated Combustible Loading:	1.4E+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 Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	A fire has the potential to
suppressed fire in this room	damage safe-shutdown
will minimize fire damage to	functions associated with safety
the safety-related equipment	train B. Train A, C and D remain
consistent with GDC-3.	free from the damage.

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Floor Area (ft²)

600

Fire Detection - Backup

Table 9A-2 Fire Hazard Analysis Summary (Sheet 230 of 306)

Fire Zone: **FA3-117-01** A-Class 1E Battery Charger Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): A-Class 1E Battery Charger Zone Designation: 804 Fig: 9A-11 Room 3.86122 Sect: Associated Safety Division(s)

Fire Detection – Primary

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-105-01	FA3-106-01	FA3-105-02
FA3-105-03	FA3-115-01	
FA3-106-01	FA3-132-01	
FA2-114-03		
FA2-121-01	See Table 9A-3	
FA2-154-02		
FA3-119-01		
FA3-118-01		

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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MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	4.7 <u>3.3</u> E+04
Maximum Anticipated Combustible Loading:	5.7 4.0E+04

Automatic smoke	Manual Fire Alarm Pull Station	
Fire Suppression – Primary	Fire Suppression - Backup	
Fire Hose Station	Portable Fire Extinguisher	
F: 1 4 7		

Floor Area
(ft ²)
3 500
_

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage the functions of A, B	
will minimize fire damage to	safeshutdown trains. C, D trains	
the safety-related equipment consistent with GDC-3.	remain free from fire damage.	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 231 of 306)

Fire Zone: **FA3-118-01 B-Class 1E Battery Charger** Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B-Class 1E Battery Charger Zone Designation: 804 9A-11 Fig: Room 3.87123 Sect: Associated Safety Division(s) В

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-103-01	FA3-103-01	FA3-103-0 3 4
FA3-10 6 4-01	FA3-104-01	FA3-104-03
FA3-117-01		
FA3-119-01		See Table 9A-3
FA3-105-03		
FA3-127-01		

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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MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	5.0 3.7E+04
Maximum Anticipated Combustible Loading:	6.0 4.5E+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 Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire has the potential to	
suppressed fire in this room	damage safe-shutdown	
will minimize fire damage to	functions associated with safety	
the safety-related equipment	train B. Train A, C and D remain	
consistent with GDC-3.	free from the damage.	

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Floor

Table 9A-2 Fire Hazard Analysis Summary (Sheet 232 of 306)

Fire Zone: **FA3-119-01** Spare Battery Charger-1 Room Building: **Power Source** Area Designation: Applicable Regulatory and Code Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Spare Battery Charger-1 Room Zone Designation: 804 Fig: 9A-11 3.88124 Associated Safety Division(s) Sect:

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Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-103-02	FA3-104-01	FA3-104 <u>5</u> -0 3 2
FA3-104-02	FA3-132-01	
FA3-105-01		
FA3-106-01	See Table 9A 3	
FA2-114-03		
FA2-154-02		
FA3-117-01		
FΔ3-129-01		

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.

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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	
I		

Floor
Area
(ft ²)
2 <mark>0</mark> 50

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

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ain

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Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.5 4.4E+04
Maximum Anticipated Combustible	6.6 <u>5.3</u> E+04
Loading:	

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 233 of 306)

Fire Zone: **FA3-120-01** C-Class 1E Battery Room Building: **Power Source** Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: C-Class 1E Battery Room 804 Fig: 9A-11 3.89125 Associated Safety Division(s) С Sect:

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.

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MIC-03-09-

00015

Potential Combustibles	
Heat Release (Btu)	
Heat Release (Btu) 3.2E+06 2.4E+06 4.2E+06 3.7E+06 5.7E+07	

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	1.2E+05
Maximum Anticipated Combustible	1.4E+05
Loading:	

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

Floor
Area
(ft ²)
()
600

Fire Impact to Zone		
Suppression System Fails to Op.		
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.		

Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 234 of 306)

Fire Zone: **FA3-121-01 Power Source** Area Designation: **D-Class 1E Battery Room** Applicable Regulatory and Code Building: Ref(s): Floor(s): B1F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: **D-Class 1E Battery Room** 804 Fig: 9A-11 MIC-03-09-Sect: 3.90126 Associated Safety Division(s) D 00015 Wall Fire Barrier Description: Floor Ceiling MIC-03-09-Adjacent Fire Zones: FA3-112-01 FA3-113-01 Walls of reinforced concrete or other material providing a 00015 (Primary Inter face FA3-120-01 FA3-113-03 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-135-01 FA3-123-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA7-104-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item High Voltage Cables 3.2E+06 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 2.4E+06 4.2E+06 Control Cables 3.7E+06 Instrumentation Cables Batterv 5.7E+07 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 fire has the potential to A quickly detected and suppressed fire in this room damage safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety Area the safety-related equipment train D. Train A, B and C remain Btu/ft² consistent with GDC-3. free from the damage. (ft²) MIC-03-09-Anticipated Combustible Loading: 1.21E+05 00015 Maximum Anticipated Combustible 1.43E+05 6050

Table 9A-2 Fire Hazard Analysis Summary (Sheet 235 of 306)

Fire Zone: **FA3-122-01** C-Class 1E Battery Charger Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): C-Class 1E Battery Charger Zone Designation: 804 9A-11 Fig: Room 3.91127 Sect: Associated Safety Division(s) С

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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MIC-03-09-

00015

MIC-03-09-00015

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	
l l		

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	5.0 2.7E+04
Maximum Anticipated Combustible	6.0 3.3E+04
Loading:	

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 in this fire zone has the potential to damage safeshutdown functions associated with safety train C. Train A, B and D remain free from the damage.	

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Floor Area (ft²)

30550

Table 9A-2 Fire Hazard Analysis Summary (Sheet 236 of 306)

Fire Zone: **FA3-123-01 D-Class 1E Battery Charger** Building: **Power Source** Area Designation: Applicable Regulatory and Code Room Ref(s): B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): D-Class 1E Battery Charger Zone Designation: 804 9A-11 Fig: Room 3.92128 Sect: Associated Safety Division(s) D

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	FA3-135-01	
FA3-122-01		
FA3-126-01	See Table 9A 3	
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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MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	4 <u>3</u> .7E+04
Maximum Anticipated Combustible Loading:	5.7 4.4E+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 imp	Fire impact to Zone	
	Suppression System Operates	Suppression System Fails to Op.	
	A quickly detected and	A fire has the potential to	
	suppressed fire in this room	damage safe-shutdown	
Floor	will minimize fire damage to	functions associated with safety	
Area	the safety-related equipment	train C, D. Train A, B remain free	
(ft^2)	consistent with GDC-3.	from the damage.	
2450			
3 450			

Circ Impact to Zono

Table 9A-2 Fire Hazard Analysis Summary (Sheet 237 of 306)

Fire Zone: **FA3-124-01** Spare Battery Charger-2 Room Building: **Power Source** Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1MF Spare Battery Charger-2 Room Zone Designation: 804 Fig: 9A-11 Sect: 3.93129 Associated Safety Division(s) D

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	
FA3-1 <mark>4</mark> 22-01		
FA3-1 <mark>4</mark> 3 <u>1</u> -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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MIC-03-09-

00015

Potential Combustibles		
Item	Heat Release (Btu)	
Item Panels Transformer Inverter High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	Heat Release (Btu) 1.0E+05 2.5E+06 2.7E+06 1.3E+06 9.9E+05 1.8E+06 1.5E+06	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	5.5 3.1E+04
Maximum Anticipated Combustible Loading:	6.6 3.8E+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

Floor Area
(ft ²)
20 350

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire in this fire zone has the	
suppressed fire in this room	potential to cause functional	
will minimize fire damage to	damage of safe-shutdown	
the safety-related equipment	functions associated with safety	
consistent with GDC-3.	train D. Train A, B and C remain	
	free from the damage.	

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** Applicable Regulatory and Code Room Ref(s): Floor(s): B1MF IBC, RG 1.189; NFPA 13, 14, 72 and Zone Designation: **A-AAC Selector Circuit Panel** 804 Fig: 9A-12 Room Sect: 3.74130 Associated Safety Division(s) В

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-105-0 2 1	FA3-116-01	FA3-105-02
FA3-106-01	FA3-133-01	
FA3-105-03		
FA3-1 <mark>4</mark> 27-01		
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.

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MIC-03-09-

00015

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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3. <mark>90</mark> E+04
Maximum Anticipated Combustible	4.7 3.6E+04
Loading:	

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 Fails to Op.

	A quickly detected and	A fire in this fire zone has the
	suppressed fire in this room	potential to cause functional
loor	will minimize fire damage to	damage of safe-shutdown
Area	the safety-related equipment	functions associated with safety
(ft ²)	consistent with GDC-3.	train B. Train A, C and D remain
(10)		free from the damage.
60 <u>0</u>		
-		

Suppression System Operates

Floor	
Area	
(ft ²)	
(/	
<mark>4</mark> 60 <u>0</u>	

Table 9A-2 Fire Hazard Analysis Summary (Sheet 239 of 306)

Fire Zone: **FA3-126-01** Building: **Power Source** Area Designation: **B-AAC Selector Circuit Panel** Applicable Regulatory and Code Room Ref(s): B1MF IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): **B-AAC Selector Circuit Panel** Zone Designation: 804 9A-12 Fig: Room 3.74131 Sect: Associated Safety Division(s) С

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.

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Potential Combustibles		
Item	Heat Release (Btu)	
Switchgear and control centers High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	Heat Release (Btu) 7.7E+06 2.4E+06 1.8E+06 3.2E+06 2.8E+06	

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3. 9 0E+04
Maximum Anticipated Combustible	4.7 <u>3.6</u> E+04
Loading:	

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

Floor
Area
(ft ²)
4600
460 <u>0</u>

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	A fire in this fire zone has the	
suppressed fire in this room will minimize fire damage to the safety-related equipment consistent with GDC-3.	potential to cause functional damage of 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 240 of 306) MIC-03-09-00015 Fire Zone: **FA3-127-01 Power Source** Area Designation: FA3-127 Stairwell Applicable Regulatory and Code Building: (East) B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA3-127-01 Stairwell 804 Fig: 9A-11 3.132 Associated Safety Division(s) Sect: В Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA3-103-01 FA3-106-01 FA3-103-04 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA3-105-03 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-106-01 and all openings and penetrations to fire area are See Table 9A-3 For Complete Listing) FA3-118-01 protected to 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train B. Btu/ft² consistent with GDC-3. Train A, C and D remain free (ft²) Anticipated Combustible Loading: A fire will be confined within from the damage to achieve <u>nil</u> the fire zone due to the low fire safe-shutdown. Maximum Anticipated Combustible 3.7E+02 250 loading. Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 241 of 306) MIC-03-09-00015 Fire Zone: **FA3-128-01 Power Source** Area Designation: FA3-128 Piping Room Applicable Regulatory and Code Building: (East) B1F, B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA3-128-01 Piping Room 804 Fig: 9A-11 3.133 Associated Safety Division(s) Sect: В Wall Floor Ceiling Fire Barrier Description: FA3-101-01 Adjacent Fire Zones: FA3-106-01 FA3-103-03 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA3-102-01 FA3-130-01 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-103-01 and all openings and penetrations to fire area are See Table 9A-3 For Complete Listing) FA3-103-02 protected to 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train B. Btu/ft² consistent with GDC-3. Train A, C and D remain free (ft²) Anticipated Combustible Loading: A fire will be confined within from the damage to achieve nil the fire zone due to the low fire safe-shutdown. Maximum Anticipated Combustible 1.2E+02 800 loading. Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 242 of 306) MIC-03-09-00015 Fire Zone: **FA3-129-01 Power Source** FA3-129 Corridor Applicable Regulatory and Code Building: Area Designation: (East) B1MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA3-129-01 Corridor 804 Fig: 9A-11 3.134 Associated Safety Division(s) Sect: <u>A</u> Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-114-03 FA3-104-01 FA3-104-04 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA2-154-02 FA3-106-01 FA3-105-02 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-104-01 and all openings and penetrations to fire area are FA3-115-01 FA3-130-01 For Complete Listing) FA3-105-01 protected to 3-hour fire resistance. See Table 9A-3 Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train A. Btu/ft² consistent with GDC-3. Train B, C and D remain free (ft²) Anticipated Combustible Loading: A fire will be confined within from the damage to achieve nil the fire zone due to the low fire safe-shutdown. Maximum Anticipated Combustible 8.9E+01 1,050 loading. Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 243 of 306)			MIC-03-09- 00015
Fire Zone: FA3-130-01 Building: Power So (East) Floor(s): 1F Fig: 9A-12	Zone De	Applicable Regulatory and Coordinate Ref(s): BC, RG 1.189; NFPA 10, 14, 804	de_
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 FA2- FA3- FA3-	Wall Floor 151-04 FA3-106-01 201-01 FA3-128-01 316-01 FA3-129-01 320-01 See Table 9A-3	Ceiling Fire Barrier Description: Reinforced concrete walls providing in excess of 3-fire resistive capability. Three hour fire rated door to and all openings and penetrations to fire area are protected to 3-hour fire resistance.	
Item Potential Combu	Heat Release (Btu)	Fire Detection – Primary Automatic smoke Manual Fire Alarm Pull Station Fire Suppression – Primary Fire Hose Station Fire Detection - Backup Manual Fire Alarm Pull Station Fire Suppression - Backup Portable Fire Extinguisher	
Fire Zone Combustib - Anticipated Combustible Loading: Maximum Anticipated Combustible Loading:	e Summary <u>Btu/ft²</u> <u>nil</u> <u>1.0E+02</u>	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. Floor Area (ft²) Graph A fire Impact to Zone Suppression System Fails of A fire has the potential to damage the safe-shutdow functions associated with train B. Train A, C and D remain for from the damage to achies safe-shutdown.	safety

Table 9A-2 Fire Hazard Analysis Summary (Sheet 244 of 306) MIC-03-09-00015 Fire Zone: **FA3-131-01 Power Source** Area Designation: FA3-131 Corridor Applicable Regulatory and Code Building: (West) B₁MF IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA3-131-01 Corridor 804 Fig: 9A-11 3.136 Associated Safety Division(s) Sect: D Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA3-111-02 FA6-135-01 FA3-113-02 Reinforced concrete walls providing in excess of 3-hour (Primary Inter face FA3-112-01 See Table 9A-3 fire resistive capability. Three hour fire rated door to area Listed See Table 9A-3 FA3-122-01 and all openings and penetrations to fire area are For Complete Listing) FA3-124-01 protected to 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train D. Btu/ft² consistent with GDC-3. Train A, B and C remain free (ft²) Anticipated Combustible Loading: A fire will be confined within from the damage to achieve <u>nil</u> the fire zone due to the low fire safe-shutdown. Maximum Anticipated Combustible 3.7E+02 250 loading. Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 245 of 306) MIC-03-09-00015 Fire Zone: **FA3-132-01 Power Source** A-Class 1E MOV Inverter Room Applicable Regulatory and Code Building: Area Designation: (East) B1F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: A-Class 1E MOV Inverter Room 804 Fig: 9A-11 3.137 Associated Safety Division(s) Sect: <u>A</u> Wall **Floor** Ceiling Fire Barrier Description: Adjacent Fire Zones: FA2-114-03 FA3-117-01 Walls of reinforced concrete or other material providing a (Primary Inter face FA3-106-01 FA3-119-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-115-01 of this room. The door to the room is 3-hour fire rated and FA3-129-01 For Complete Listing) FA3-133-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Switchgear and Control Centers 3.9E+06 Automatic smoke Manual Fire Alarm Pull Station 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 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train A. Btu/ft² consistent with GDC-3. Train B, C and D remain free (ft^2) Anticipated Combustible Loading: 8.4E+04 from the damage. Maximum Anticipated Combustible 1.0E+04 450 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 246 of 306) MIC-03-09-00015 Fire Zone: **FA3-133-01 Power Source B-Class 1E MOV Inverter Room** Applicable Regulatory and Code Building: Area Designation: (East) B1F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: B-Class 1E MOV Inverter Room 804 Fig: 9A-11 3.138 Associated Safety Division(s) Sect: В Wall **Floor** Ceiling Fire Barrier Description: Adjacent Fire Zones: FA3-106-01 FA3-105-03 Walls of reinforced concrete or other material providing a (Primary Inter face FA3-116-01 FA3-125-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-127-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA3-132-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Switchgear and Control Centers 1.9E+06 Automatic smoke Manual Fire Alarm Pull Station 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 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 A fire has the potential to suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train B. Btu/ft² consistent with GDC-3. Train A, C and D remain free (ft^2) Anticipated Combustible Loading: 3.3E+04 from the damage. Maximum Anticipated Combustible 4.0E+04 450 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 247 of 306) MIC-03-09-00015 Fire Zone: **FA3-134-01 Power Source** C-Class 1E MOV Inverter Room Applicable Regulatory and Code Building: Area Designation: (West) IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: C-Class 1E MOV Inverter Room 804 Fig: 9A-11 3.139 Associated Safety Division(s) Sect: C Wall Floor Ceiling Fire Barrier Description: Adjacent Fire Zones: FA3-112-01 FA4-101-22 FA3-112-01 Walls of reinforced concrete or other material providing a (Primary Inter face FA3-120-01 FA3-126-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-135-01 of this room. The door to the room is 3-hour fire rated and For Complete Listing) FA4-101-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Switchgear and Control Centers 1.9E+06 Automatic smoke Manual Fire Alarm Pull Station High Voltage Cables 4.2E+06 Low Voltage Cables 4.3E+06 **Control Cables** 3.4E+06 Instrumentation Cables 9.3E+05 Instruments 2.4E+04 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train C. Btu/ft² consistent with GDC-3. Train A, B and C remain free (ft^2) Anticipated Combustible Loading: 3.3E+04 from the damage. Maximum Anticipated Combustible 4.0E+04 450 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 248 of 306) MIC-03-09-00015 Fire Zone: **FA3-135-01 Power Source D-Class 1E MOV Inverter Room** Applicable Regulatory and Code Building: Area Designation: (West) IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F Zone Designation: D-Class 1E MOV Inverter Room 804 Fig: 9A-11 3.140 Associated Safety Division(s) Sect: D Wall **Floor** Ceiling Fire Barrier Description: Adjacent Fire Zones: FA3-112-01 FA3-113-01 Walls of reinforced concrete or other material providing a (Primary Inter face FA3-121-01 FA3-123-01 minimum 3-hour fire resistance rating form the boundaries Listed See Table 9A-3 FA3-134-01 of this room. The door to the room is 3-hour fire rated and FA3-131-01 For Complete Listing) FA7-104-01 all openings and penetrations into the room are rated to provide 3-hour fire resistance. Potential Combustibles Heat Release (Btu) Fire Detection – Primary Fire Detection - Backup Item Switchgear and Control Centers 3.9E+06 Automatic smoke Manual Fire Alarm Pull Station 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 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 fire has the potential to A quickly detected and suppressed fire in this room damage the safe-shutdown Fire Zone Combustible Summary Floor will minimize fire damage to functions associated with safety <u>Area</u> the safety-related equipment train D. Btu/ft² consistent with GDC-3. Train A, B and C remain free (ft^2) Anticipated Combustible Loading: 7.9E+04 from the damage. Maximum Anticipated Combustible 9.5E+04 500 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 249 of 306)

Fire Zone: **FA4-101-01 Auxiliary Building** Building: **Power Source** Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F to 2F **Auxiliary Building B1F Floor** Zone Designation: 804 Fig: 9A-13 to 9A-15 Associated Safety Division(s) Sect: 3.94141 N

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	FA3-1 20 34-01	FA4-101-2 <mark>4</mark> 0
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

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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	1.2E+05
Transport Container	
High Voltage Cables	1.0E+08
Low Voltage Cables	7.8E+07
Control Cables	1.4E+08
Instrumentation Cables	1.2E+08

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <u>65</u> E+04
Maximum Anticipated Combustible Loading:	3. <u>40</u> E+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
	'

assigned fire rating.

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.	N C E
consistent with GDC-3.		l

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Floor Area (ft²)

19,6540

0

20,450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 250 of 306)

Fire Zone: **FA4-101-02** Building: **Power Source** Area Designation: **Auxiliary Building** Applicable Regulatory and Code Ref(s): Floor(s): B1F to Roof IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: FA4-101-02 Stairwell 804 Fig: 9A-13 to 9A-17 (B1F-3F) MIC-03-09-3.94141 Sect: Associated Safety Division(s) Fire Barrier Description: Adjacent Fire Zones: The walls of the A/B fire area are constructed using

(Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-116-03	FA2-209-05	Roof
FA2-127-07	FA2-210-21	
FA2-128-01	FA2-213-01	
FA2-153-02	FA2-214-07	See Table 9A-3
	FA2-418-01	
	FA4-101-03	

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 3hours fire resistance. Internal zone boundaries are

Potential Combustibles Item Heat Release (Btu) Transient Only 9.3E+04

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	nil
Maximum Anticipated Combustible Loading:	6.2 9.3E+02

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

structural without assigned fire rating.

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	There is no safe-shutdown circuit in this zone to be damaged.
extinguishers or manual hose streams before damage.	

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Floor Area (ft²)

1500

Fire Detection - Backup

Table 9A-2 Fire Hazard Analysis Summary (Sheet 251 of 306)

Fire Zone: **FA4-101-03 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, 1F Zone Designation: **Boric Acid Tank Room** 804 Fig: 9A-13, 9A-14 3.94141 Associated Safety Division(s) Sect:

7 F

Fire Detection - Primary

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

Potential Combu		
Item		Heat Release (Btu)
	Gasket	7.9E+04
li li	nstruments	7.0E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	5.8 <u>6.0</u> E+02
Maximum Anticipated Combustible Loading:	7.7 <u>8.0</u> E+02

The Betection Timilary	The Detection Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

structural without assigned fire rating.

Floor Area (ft ²)
1,3 <u>50</u> 0

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A fire in this area credibly	There is no safe-shutdown	
involves small amount of	circuit in this zone to be	
materials which personnel	damaged.	
would notice a fire involving		
and initiate fire suppression		
using portable extinguishers		
or manual hose streams		
before damage.		

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 252 of 306)

Fire Zone: FA4-101-04

Building: Auxiliary

Floor(s): 1F, 2F

Fig: 9A-14, 9A-15

3.94141

Area Designation: Auxiliary Building

Zone Designation: Auxiliary Building 1F Floor

Automatic smoke

N

Fire Detection – Primary

Applicable Regulatory and Code Ref(s):

IBC, RG 1.189; NFPA 10, 14, 72 and 804

Fire Detection - Backup

Manual Fire Alarm Pull Station

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Sect:

Wall	Floor	Ceiling
FA2-127-07	FA4-101-01	FA4-101-06
FA2-128-02	FA4-101-25	FA4-101-07
FA2-152-03		FA4-101-08
FA2-152-04	See Table 9A-3	FA4-101-10

Associated Safety Division(s)

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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.6E+04
Maximum Anticipated Combustible Loading:	3. <u>21</u> E+04

Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher
Fire Impact to Zone	

Fire Impact to ∠one		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment	_	
consistent with GDC-3.		

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Floor Area (ft²)

19,850

20,450

Table 9A-2 Fire Hazard Analysis Summary (Sheet 253 of 306)

Fire Zone: **FA4-101-06 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: Non-Class 1E Electrical Room 804 9A-15 Fig: (FA4-101-06) 3.94141 Sect: Associated Safety Division(s)

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 Combi	ustibles
Item	Heat Release (Btu)
Control Center	1.4E+07
Low Voltage Cables	4.2E+08

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2. 7 <u>6</u> E+05	
Maximum Anticipated Combustible Loading:	3. 3 1E+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

	A quic
	suppr
Floor	will mi
Area	the sa
(ft^2)	consis
4.000	
1, 6 <u>7</u> 00	

Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown		
suppressed fire in this room	circuit in this zone to be		
will minimize fire damage to	damaged.		
the safety-related equipment			
consistent with GDC-3.			

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MIC-03-09-00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 254 of 306)

				,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			-,
Fire Zone: FA4-10	1-07							
Building:	Auxiliary	Area Desig	nation:	Auxiliary	Building			Applicable Regulatory and Code
								Ref(s):
Floor(s):	2F							IBC, RG 1.189; NFPA 13, 14, 72 and
		Zone Desig	nation:	Compute	r Room			804
Fig:	9A-15							
Sect:	3. 94 <u>141</u>	Associated Safety Div	/ision(s)		N			
	Wall	Floor		eiling		Barrier De		
Adjacent Fire Zon	nes: FA4-101-06	FA4-101-04	FA4	-101-18	The	walls of t	he A/B f	ire area are constructed using
imary Inter face	FA4-101-08				rein	forced co	ncrete a	nd other material which results in

Eisted See Table 9A-3
For Complete Listing)

FA4-101-10

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 Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	6.8E+03	
Maximum Anticipated Combustible Loading:	8.2E+03	

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
	l .

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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Floor Area (ft²)

1,150

Table 9A-2 Fire Hazard Analysis Summary (Sheet 255 of 306)

Fire Zone: **FA4-101-08 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): Zone Designation: Non-Class 1E I&C Room 804 9A-15 Fig: (FA4-101-08) 3.94141 Sect: Associated Safety Division(s)

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. 9 <u>8</u> E+04
Maximum Anticipated Combustible Loading:	3. <u>53</u> E+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 Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

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Area (ft²) **2,7085</u>0**

Floor

Table 9A-2 Fire Hazard Analysis Summary (Sheet 256 of 306)

Fire Zone: **FA4-101-09 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: Radwaste Control Room 804 Fig: 9A-15 3.94141 Associated Safety Division(s) Sect:

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

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7.4 4.3E+04
Maximum Anticipated Combustible Loading:	8.9 <u>5.2</u> E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Overservier Drivers	Fire Communication Declara
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Portable Fire Extinguisher

structural without assigned fire rating.

Fire Impact to Zone	
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	There is no safe-shutdown
suppressed fire in this room	circuit in this zone to be
will minimize fire damage to	damaged.
the safety-related equipment	_
consistent with GDC-3.	
	Suppression System Operates A quickly detected and suppressed fire in this room will minimize fire damage to the safety-related equipment

Table 9A-2 Fire Hazard Analysis Summary (Sheet 257 of 306)

Fire Zone: **FA4-101-10 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: FA4-101-10 Corridor 804 Fig: 9A-15 3.94141 Associated Safety Division(s) Sect:

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		Roof
FA2-317-01	See Table 9A-3	
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.

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)

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.0E+04
Maximum Anticipated Combustible Loading:	2. <u>43</u> E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Suppression – Primary	Fire Cuppression Paskup
11 /	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

	Floor Area (ft ²)
-	4, <u>56</u> 00

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 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): Zone Designation: Non-Class 1E I&C Room 804 9A-15 Fig: (FA4-101-11) 3.94141 Sect: Associated Safety Division(s)

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 High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	8.7E+06 8.7E+06 6.5E+06 1.2E+07 1.0E+07

Fire Zone Compustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.8E+04
Maximum Anticipated Combustible Loading:	3.3E+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

Floor
Area
(ft ²)
()
1,650

Fire Impact to Zone		
Suppression System Operates Suppression System Fails to Op.		
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 259 of 306)

Fire Zone: **FA4-101-12** Building: Auxiliary Area Designation: **Auxiliary Building** Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): Zone Designation: Non-Class 1E I&C Room 804 9A-15 Fig: (FA4-101-12) 3.94141 Sect: Associated Safety Division(s)

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 3hours 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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3. 2 3E+04
Maximum Anticipated Combustible Loading:	3. 8 9E+04
Ludulily.	

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	There is no safe-shutdown
	suppressed fire in this room	circuit in this zone to be
•	will minimize fire damage to	damaged.
	the safety-related equipment	
	consistent with GDC-3.	
0		

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Area (ft^2) 2,6055

Floor

Table 9A-2 Fire Hazard Analysis Summary (Sheet 260 of 306)

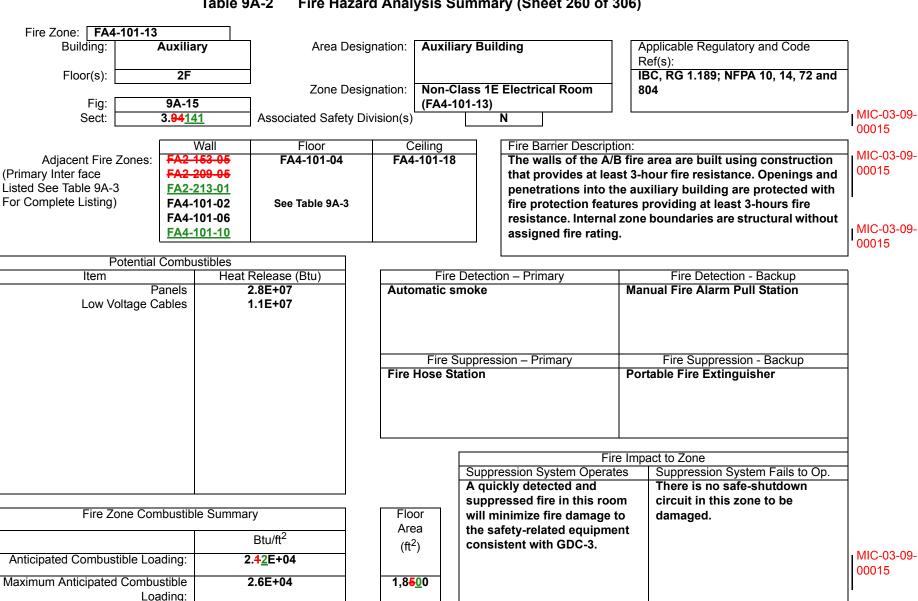


Table 9A-2 Fire Hazard Analysis Summary (Sheet 261 of 306)

Fire Zone: **FA4-101-14 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **Communication System** 804 9A-15 Fig: **Equipment Room** 3.94141 Sect: Associated Safety Division(s)

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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		
FA4-101-12		
FA4-101-16	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	1.1E+07

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	8. <mark>4</mark> 5E+03
Maximum Anticipated Combustible Loading:	9.8 1.0E+0 3 4

Fire Detection - Backup
Manual Fire Alarm Pull Station
<u> </u>
Fire Suppression - Backup
Portable Fire Extinguisher

Fire Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

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Area (ft²)

1,3<u>60</u>0

Floor

Table 9A-2 Fire Hazard Analysis Summary (Sheet 262 of 306)

Fire Zone: **FA4-101-15 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: Resin Fill Tank Room 804 Fig: 9A-15 3.94141 Associated Safety Division(s) Sect:

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		
FA4-101-02		
FA4-101-04	See Table 9A-3	
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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2.4 <u>3</u> E+04
Maximum Anticipated Combustible Loading:	2. 9 7E+04

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Commence Delegation	Fire Communication Declara
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone

Suppression System Fails to Op.

		- - - - - - - -
	A quickly detected and	There is no safe-shutdown
	suppressed fire in this room	circuit in this zone to be
Floor	will minimize fire damage to	damaged.
Area	the safety-related equipment	
(ft ²)	consistent with GDC-3.	
()		
1, <u>56</u> 00		

Suppression System Operates

Table 9A-2 Fire Hazard Analysis Summary (Sheet 263 of 306)

Fire Zone: **FA4-101-16 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: Non-Class 1E Battery Room 804 Fig: 9A-15 3.94141 Associated Safety Division(s) Sect: N

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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	7. <u>52</u> E+04
Maximum Anticipated Combustible Loading:	9.0 <u>8.7</u> E+04

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Portable Fire Extinguisher

_	
	Floor
	Area
	(ft^2)
Γ	1, 25 300

Fire Imp	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A quickly detected and	There is no safe-shutdown
suppressed fire in this room	circuit in this zone to be
will minimize fire damage to	damaged.
the safety-related equipment	
consistent with GDC-3.	

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 264 of 306)

Fire Zone: **FA4-101-17 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): 2F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): Zone Designation: **Boric Acid Batching Tank Room** 804 9A-15 Fig: 3.94141 Associated Safety Division(s) Sect: N

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
FA2-119-01		
FA2-209-05		
FA2-213-01	See Table 9A-3	
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.

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Potential Combustibles	
Item	Heat Release (Btu)
Gas	sket 4.1E+04
Instrume	ents 5.3E+05

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	4. <mark>2</mark> 4E+02
Maximum Anticipated Combustible Loading:	5.8 <u>6.0</u> E+02

Fire Detection – Primary	Fire Detection - Backup
Automatic smoke	Manual Fire Alarm Pull Station
Fire Cuppression Drimary	Fire Cuppropsion Bookup
Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher

Fire Impact to Zone

	Suppression System Operates	Suppression System Fails to Op.
Floor Area (ft ²)	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.
1,3 <u>50</u> 0		

Fire Detection - Backup

Suppression System Fails to Op.

Manual Fire Alarm Pull Station

Table 9A-2 Fire Hazard Analysis Summary (Sheet 265 of 306)

Fire Zone: **FA4-101-18** Auxiliary Area Designation: **Auxiliary Building** Applicable Regulatory and Code Building: Floor(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Zone Designation: **HVAC Equipment Room** 804 Fig: 9A-16 (FA4-101-18) 3.94141 Sect: Associated Safety Division(s)

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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
FA2-423-01	FA4-101-09	See Table 9A-3
FA4-101-0 2 1		

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

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <mark>43</mark> E+04
Maximum Anticipated Combustible Loading:	2. 9 <u>8</u> E+04

Fire Suppression – Primary	Fire Suppression - Backup
Fire Hose Station	Portable Fire Extinguisher
Fire Impact to Zone	

Floor
Area
(ft²)

There is no safe-shutdown circuit in this zone to be damaged.

There is no safe-shutdown circuit in this zone to be damaged.

the safety-related equipment consistent with GDC-3.

Suppression System Operates

assigned fire rating.

Fire Detection – Primary

Automatic smoke

Table 9A-2 Fire Hazard Analysis Summary (Sheet 266 of 306)

Fire Zone: **FA4-101-19 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): 3F TSC Emergency Filter Unit & Zone Designation: 804 9A-16 Fig: Fan Room MIC-03-09-3.94141 Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA4-101-18	FA4-101-09	Roof
	FA4-101-10	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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	3.2E+04
Maximum Anticipated Combustible Loading:	3.9E+04

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

	Suppression System Operates	Suppression System Fails to Op.
	A quickly detected and	There is no safe-shutdown
	suppressed fire in this room	circuit in this zone to be
Floor	will minimize fire damage to	damaged.
Area	the safety-related equipment	
(ft ²)	consistent with GDC-3.	
()		
800		

Fire Impact to Zone

Table 9A-2 Fire Hazard Analysis Summary (Sheet 267 of 306)

Fire Zone: **FA4-101-20** Building: Auxiliary Area Designation: **Auxiliary Building** Applicable Regulatory and Code Ref(s): 3F IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): **HVAC Equipment Room** Zone Designation: 804 9A-16 Fig: (FA4-101-20) 3.94141 Sect: Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-118-01	<u>FA4-101-01</u>	FA4-101-24
FA2-119-01	FA4-101-04	Roof
FA2-418-01	FA4-101-15	
FA4-101-0 2 1	FA4-101-17	See Table 9A-3
FA4-101-18	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.

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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 Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. 3 4E+04
Maximum Anticipated Combustible Loading:	2. 8 9E+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.	
consistent with edge of		

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Area (ft²) 8,35000

Floor

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 Floor(s): 3F C/V Low Volume Purge Exhaust Zone Designation: 804 9A-16 Fig: **Filtration Unit Room** Sect: 3.94141 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

<u>)</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.

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Potential Combu	ıstibles
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 Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	3.3 4.0E+04
Maximum Anticipated Combustible Loading:	4. 0 <u>8</u> E+04

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 Impact to Zone		
Suppression System Operates	Suppression System Fails to Op.	
A quickly detected and	There is no safe-shutdown	
suppressed fire in this room	circuit in this zone to be	
will minimize fire damage to	damaged.	
the safety-related equipment		
consistent with GDC-3.		

MIC-03-09-00015

Floor Area (ft²)

1,7400

Table 9A-2 Fire Hazard Analysis Summary (Sheet 269 of 306)

Fire Zone: **FA4-101-22 Auxiliary Building** Building: Auxiliary Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): B1F, 1F **Hold Up Tank Room** Zone Designation: 804 9A-13, 9A-14 Fig: 3.94141 Associated Safety Division(s) Sect:

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA3-112-01	<u>-FA4-101-01</u>	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
FA4-101-01		
FA4-101-04		
EA5-101-01		

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.

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Potential Combustibles		
Item		Heat Release (Btu)
	Gasket	1.2E+05
	Instruments	5.3E+05

Fire Zone Combustible Summary	
Btu/ft ²	
Anticipated Combustible Loading:	2.2E+02
Maximum Anticipated Combustible	2.9 3.0E+02
Loading:	

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

Floor Area (ft ²)	suppres will min the safe consist
2,9 <u>60</u> 0	

Fire Impact to Zone		
Suppression System Fails to Op.		
There is no safe-shutdown		
circuit in this zone to be		
damaged.		
-		

Table 9A-2 Fire Hazard Analysis Summary (Sheet 270 of 306)

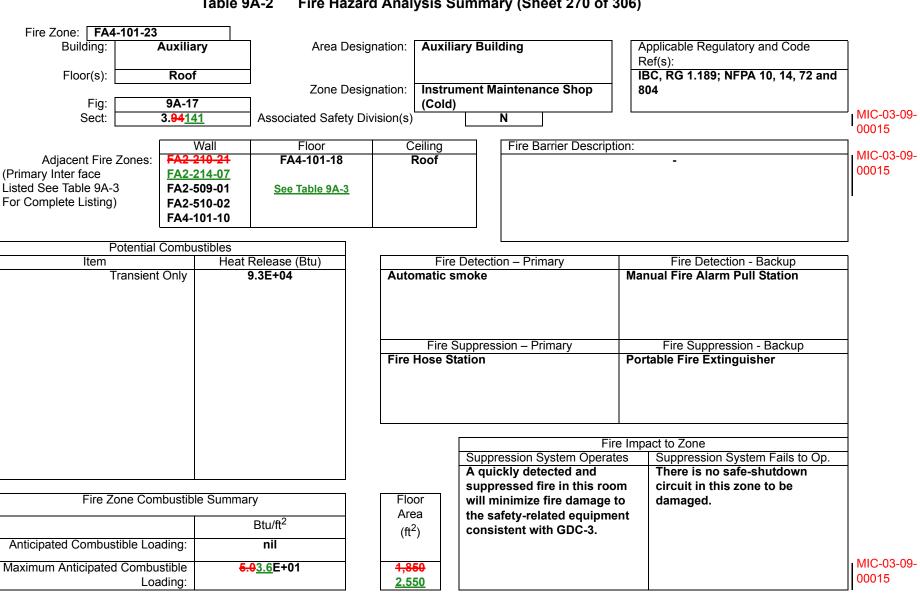


Table 9A-2 Fire Hazard Analysis Summary (Sheet 271 of 306)

		Table 9	A-2 Fire Haz	aru Anai	ysis Suii	iiiaiy (C	11000 27 1 01	300)		
Floor(s): Roof		Area Designation:		Auxiliary Building			Applicable Regulatory and Code Ref(s):]		
		signation: Auxiliary Building EL.76'-5"			IBC, RG 1.189; NFPA 10, 14, 72 and 804	-				
Fig: Sect:	9A- 3. 94		Associated Safety	_	Floor	N		J L		MIC-03-0
Adjacent Fire 2	Zones: FA	Wall 2-118-01	Floor FA4-101-18		eiling Roof	Fire	Barrier Descri	otion:		00015
(Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA: FA:	2-119-01 2-219-01 2-210-21 2-214-07 1-101-02	FA4-101-10 FA4-101-20 See Table 9A-3						•	MIC-03-0 00015
Po Item	otential Com		Release (Btu)		Fire De	tection – F	Primary		Fire Detection - Backup]]
	ransient Only		9.3E+04		matic smo				nual Fire Alarm Pull Station	
						pression -	Primary		Fire Suppression - Backup	
				Fire	Hose Stati	on		Po	rtable Fire Extinguisher	
							F	ire Im	pact to Zone	_
							n System Oper letected and	ates	Suppression System Fails to Op. There is no safe-shutdown	
Fire Zone Combustible Summary		Flo	or s	suppressed fire in this room will minimize fire damage to damaged.						
			Btu/ft ²	Are (ft ²		the safety-related equipment consistent with GDC-3.				
Anticipated Combust	ible Loading	:	nil	(´					
Maximum Anticipated	Combustible Loading		2.4E+01	3,9	50					

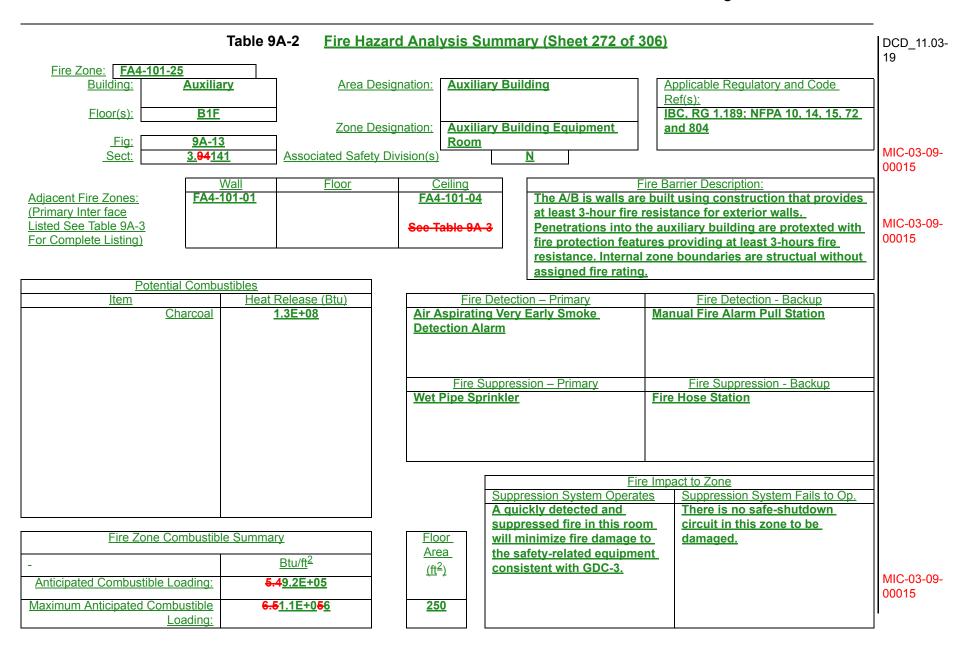


Table 9A-2 Fire Hazard Analysis Summary (Sheet 273 of 306)

Fire Zone: **FA5-101-01 Access Control Building Area** Building: **Access Control** Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): B1F to 2F Zone Designation: **Access Control Building** 804 9A-18, 9A-19 Fig: Sect: 3.95142 Associated Safety Division(s) N

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.

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MIC-03-09-00015

Potential Combu	stibles
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
	00
l l	

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2.5E+04	
Maximum Anticipated Combustible Loading:	2.9E+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 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 (ft²)

8,800

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 274 of 306)

Fire Zone: **FA5-101-02** Building: **Access Control** Area Designation: **Access Control Building Area** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): 2F Zone Designation: **Technical Support Center** 804 Fig: 9A-19 MIC-03-09-Associated Safety Division(s) Sect: 3.95142 N Wall Fire Barrier Description: Floor Ceiling Adjacent Fire Zones: FA4-101-10 FA5-101-01 Roof The walls of this zone are constructed using reinforced (Primary Inter face FA4-101-11 concrete and other material zone boundaries are Listed See Table 9A-3 FA4-101-12 structural without assigned fire rating. For Complete Listing) FA5-101-01 Potential Combustibles Heat Release (Btu) Fire Detection - Primary Fire Detection - Backup Item High Voltage Cables 1.6E+07 Automatic smoke Manual Fire Alarm Pull Station Low Voltage Cables 1.2E+07 2.1E+07 Control Cables Instrumentation Cables 1.9E+07 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 There is no safe-shutdown suppressed fire in this room circuit in this zone to be Fire Zone Combustible Summary Floor will minimize fire damage to damaged. Area the safety-related equipment Btu/ft² consistent with GDC-3. (ft^2) Anticipated Combustible Loading: 2.2E+04 2.7E+04 Maximum Anticipated Combustible 3,000 Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 275 of 306)

Fire Zone: **FA6-101-01 Turbine Building** Building: Turbine Area Designation: Applicable Regulatory and Code Ref(s): B1F IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): Zone Designation: **Turbine Building B1F Floor** 804 Fig: 9A-20 Sect: 3.96143 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
-	-	FA6-101-02
		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 Combu	ıstibles
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
Fire Suppression – Primary Wet Pipe Sprinkler	Fire Suppression - Backup Fire Hose Station

Fire Zone Combustible Summary		
	Btu/ft ²	
Anticipated Combustible Loading:	2.4 <u>5</u> E+04	
Maximum Anticipated Combustible Loading:	2.5 3.1E+04	

Floor Area (ft ²)
47,400 39,450

Fire Iron	act to Zone		
Fire Impact to Zone			
Suppression System Operates	Suppression System Fails to Op.		
The wet-pipe extinguishing	There is no safe-shutdown		
system provides protection to	circuit in this zone to be		
prevent a severe fire in this	damaged.		
area. This will minimize			
damage from a severe fire.			

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Table 9A-2 Fire Hazard Analysis Summary (Sheet 276 of 306)

Fire Zone: FA6	5-101-02				
Building:	Turbine	Area Designation:	Turbine Building		Applicable Regulatory and Code
					Ref(s):
Floor(s):	1F				IBC, RG 1.189; NFPA 13, 14, 72 and
		Zone Designation:	Turbine Building 1F F	loor	804
Fig:	9A-21]			
Sect:	3 96143	Associated Safety Division(s)	N		

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		FA6-101-16
FA6-101-05	See Table 9A-3	
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 Zone Combustible Summary			
	Btu/ft ²		
Anticipated Combustible Loading:	2.3E+04		
Maximum Anticipated Combustible Loading:	2.8E+04		

Fire Detection – Primary	Fire Detection - Backup
There is no automatic detection.	Manual Fire Alarm Pull Station
Eiro Cupproccion Drimory	
Fire Suppression – Primary	Fire Suppression - Backup
Wet Pipe Sprinkler	Fire Hose Station

Floor
Area
(ft ²)
•
60,550
00,000

Fire Imp	act 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)

			Table 9	A-2 Fire Haz	ard Ana	llysis Sι	ımma	ry (She	et 277 of 3	306)		
Fire Zone: FA6	-101-03											
Building:	101.00	Turbine	•	Area De	signation:	Turbine	e Buildi	ng			pplicable Regulatory and Code lef(s):	7
Floor(s):		1F		Zone De	esignation: Electrical		cal Room (1F)		IBC, RG 1.189; NFPA 13, 72 and 804	'		
Fig:		9A-21		7	oignation.		Ju. 1100	(,				
Sect:		3. 96 143	3	Associated Safety Division		rision(s) N		1		MIC-03-09-		
<u>.</u>				-								00015
	_		Vall	Floor		Ceiling			rrier Descript			MIC-03-09-
Adjacent Fire	∠ones:		101-02	FA6-101-10			This Electric Room is separated from the adjacent to			00015		
(Primary Inter face Listed See Table 9A-3	2		101-04	FA6-101-15				and fire areas with a 3-hour fire rated		MIC-03-09-		
For Complete Listing)			<u>101-07</u> 101-09					•	rations and openings protected to 3-		00015	
i or complete Listing)	,	FA0-	101-09					nour 11	re resistance	₽.		
Р	otential	Combus	stibles									_
Item	Otorradi			Release (Btu)		Fire	Detection	n – Prim	arv		Fire Detection - Backup	7
	Ва	attery		1.4E+07	Aut	omatic sn			<u> </u>	Mar	nual Fire Alarm Pull Station	
		arger		5.2E+06								
Switchgear and Co				4.4E+07								
	oltage C			5.2E+07								
Low Voltage Cables Control Cables			3.9E+07		Fire C		ion Dei			Fire Compression Books		
Instrumen				6.9E+07 6.0E+07	Dro	Fire Suppression – Primary Preaction Sprinkler Double-interlock			Fire	Fire Suppression - Backup • Hose Station	MIC-03-09-	
IIISHUIIIEH	itation C	ables		0.02+07		-action su				File	e nose station	00015
					DIC	-action su	ipiessii	on syste	<u></u>			
											act to Zone	
						=			stem Operat	es	Suppression System Fails to Op.	
									cted and		There is no safe-shutdown	
Eiro 7	ono Con	abuotible	Summa	ur./		oor			re in this roo		circuit in this fire zone to be	
File 20	one Con	ibustible	Summa	ıı y		rea			ire damage i ted equipme		damaged.	
				Btu/ft ²				•	nea equipine h GDC-3.	erit.		
Anticipated Combus	tible I os	adina:	2	.7 2.2E+04	(1	t ²)	COHSIS	otent Wil	ii GDC- 3.			MIC-03-09-
·		•										00015
Maximum Anticipated			8	. <u>4</u> 2.7E+04	12	,750						
	Loa	ading:										

Table 9A-2 Fire Hazard Analysis Summary (Sheet 278 of 306)

Fire Zone: **FA6-101-04 Turbine Building** Building: Turbine Area Designation: Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 13, 14, 72 and Floor(s): 1F Zone Designation: FA6-101-04 Zone 804 9A-21 Fig: Sect: 3.96143 Associated Safety Division(s) Wall Ceiling Fire Barrier Description: Floor FA2-102-01 The turbine building is separated from the adjacent R/B Adjacent Fire Zones: FA2-203-01 FA6-101-15 (Primary Inter face and power source building with a 3-hour fire rated wall FA2-108-01 FA2-204-01 Listed See Table 9A-3 FA2-201-01 FA2-205-01 with all penetrations and openings protected to 3-hour fire For Complete Listing) FA2-2026-01 FA2-206-01 See Table 9A-3 resistance. FA3-111-03

> FA6-101-02 FA6-101-03 FA6-101-07

Potential Combu	ustibles
Item	Heat Release (Btu)
Item High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	Heat Release (Btu) 4.5E+07 3.4E+07 6.1E+07 5.3E+07

Fire Zone Combustible Summary				
	Btu/ft ²			
Anticipated Combustible Loading:	2. 2 1E+04			
Maximum Anticipated Combustible Loading:	2.7 2.5E+04			

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

Floor Area (ft ²)
8,600 9.300

Fire Impa	ict 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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MIC-03-09-

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00015

	Table 9	A-2 Fire Haza	rd Ana	iysis St	ımma	ry (Sheet 279 of 3	306)		
Fire Zone: FA6-101-05									
	urbine	Area Desi	gnation:	Turbine	e Build	ing		oplicable Regulatory and Code ef(s):	
Floor(s): 1F	to Roof	Zone Desi	gnation:	FA6-10	1-05 St	tairwell	IB 80	C, RG 1.189; NFPA 10, 14, 72 and	
	1 to 9A-26								MO 00 00
Sect: 3	3. 96 143	Associated Safety D	ivision(s))		N			MIC-03-09
_	\A/- II			S - 111		Fr. D			00015
Adjacent Fire Zones:	Wall FA6-101-02	Floor FA6-101-22		Ceiling Roof		Fire Barrier Description		rrounds the stairwell shaft. All	4
(Primary Inter face	FA6-101-13	FA0-101-22		ROOI				the shaft are protected for	
Listed See Table 9A-3	FA6-101-17							oors to the stairwell are rated to	
For Complete Listing)	FA6-101-19							. The stair well is designed to	
5 5 7 5 5 5 7		<u> </u>				meet IBC requireme		. The stan won is assigned to	
Potential C	combustibles								_
Item		Release (Btu)		Fire I	Detection	on – Primary		Fire Detection - Backup	7
Transient (Only	9.3E+04	The	re is no a	utoma	tic detection.	Man	ual Fire Alarm Pull Station	1
				Fire C	unnrood	nian Driman		Fire Cuppression - Dealers	
			Eiro	Hose Sta		sion – Primary	Dort	Fire Suppression - Backup able Fire Extinguisher	4
			riie	nose su			Port	able Fire Extiliguisher	
								act to Zone	
						ession System Operate	es	Suppression System Fails to Op.	_
						in this area credibly		There is no safe-shutdown	
Fire Zere Comb	4:1-1-0					es transient material		circuit in this zone to be	
Fire Zone Comb	oustible Summa	ry	Flo	_		personnel would not		damaged.	
		Btu/ft ²				involving and initiate			
Anticipated Combustible Load	ling:	nil	(ft	(*)	exting	ression using portable guishers or manual ho			
Maximum Anticipated Combus Load		2.7E+02	35	50	strear	ns before damage.			

Table 9A-2 Fire Hazard Analysis Summary (Sheet 280 of 306)

		Table 9	IA-2 FIFE Haza	ra Anai	iysis Si	umma	ry (Sneet 280 of 3	(00		
Fire Zone: FA6-1	01-06									
Building:	Ti	urbine	Area Desi	ignation:	Turbin	e Build	ing		pplicable Regulatory and Code lef(s):	
Floor(s):	1F	to Roof	Zone Desi	ianation:	EA6-10	01-06 St	airwoll		3C, RG 1.189; NFPA 10, 14, 72 and 04	
Fig:	9Δ-2	1 to 9A-26		igi iation.	1 40-10	71-00 30	allwell	0	04	
Sect:		. 96 143	Associated Safety D)ivision(s))		N			MIC-03
		<u></u>] / 100001111011 011101, 2	(0)	,]				00015
		Wall	Floor		Ceiling		Fire Barrier Descripti			
Adjacent Fire Zo	ones:	FA6-101-02	FA6-101-23		Roof				urrounds the stairwell shaft. All	1
(Primary Inter face		FA6-101-13							n the shaft are protected for	
Listed See Table 9A-3		FA6-101-17					2-hours fire resistar	nce.	Doors to the stairwell are rated to	
For Complete Listing)		FA6-101-19							e. The stair well is designed to	
						<u>-</u>	meet IBC requireme	ents.		
	ential Co	ombustibles	- (5)			.				7
Item _	nsient C		Release (Btu) 9.3E+04				on – Primary tic detection.	L	Fire Detection - Backup	
				Fine			sion – Primary	D	Fire Suppression - Backup	
				Fire	Hose St	ation		Por	table Fire Extinguisher	
							Fire	e Imp	act to Zone	1
							ession System Operate	es	Suppression System Fails to Op.	
							in this area credibly		There is no safe-shutdown	
							es transient material		circuit in this zone to be	
Fire Zon	e Comb	ustible Summa	ry	Flo			personnel would no		damaged.	
			Btu/ft ²	(ft			involving and initiate ession using portable			
Anticipated Combustib	le Loadi	ing:	nil	"	'	exting	juishers or manual ho			
Maximum Anticipated C	Combust	ible	2.1E+02	45	50	strear	ns before damage.			
	Loadi									

	Table 9	A-2 Fire Haza	ard Anal	ysis Sun	nmary (Sheet 281 of	306)	
Fire Zone: FA6-101-07							
	Turbine	Area Des	signation:	Turbine E	Building	Applicable Regulatory and Code Ref(s):	
Floor(s):	F to Roof					IBC, RG 1.189; NFPA 10, 14, 72 and	
Fin: 0.4	04.4 0.4-00	Zone Des	signation:	FA6-101-	07 E.V Shaft	804	
3	21 to 9A-26 3. 96 143	Associated Safety [] (ShooisiviC		N I		, MIC-03-09
Jeou	0.00 <u>140</u>	7 10000lated Calcty L	514131011(3)	<u>L</u>	14		00015
[Wall	Floor		eiling	Fire Barrier Descrip		
Adjacent Fire Zones:	FA6-101-02	FA6-101-01	F	Roof		rrier surrounds the elevator shaft. All	MIC-03-09
(Primary Inter face Listed See Table 9A-3	FA6-101-03 FA6-101-04					or from the shaft are protected for ance. Doors to the elevator are rated to	00015
For Complete Listing)	FA6-101-04 FA6-101-08	See Table 9A-3				istance. The elevator shaft designed to	
[17.0 101 00	000 14510 071 0				ME 17 requirements.	
Potential (Combustibles					·	
Item		Release (Btu)			tection – Primary	Fire Detection - Backup	
Transient	Only	9.3E+04	There	e is no aut	omatic detection.	Manual Fire Alarm Pull Station	
					pression – Primary	Fire Suppression - Backup	
			Fire I	Hose Statio	on	Portable Fire Extinguisher	
				-	uppression System Opera	ire Impact to Zone ates Suppression System Fails to Op.	
					fire in this area credibly		
					volves transient materia		
Fire Zone Com	bustible Summa	ry	Floo		hich personnel would n		
		Btu/ft ²	Are		fire involving and initiate		
			(ft ²		uppression using portab		
Anticipated Combustible Loa	ding:	nil			xtinguishers or manual h	hose	
Maximum Anticipated Combus	stible	6.2E+02	150		treams before damage.		
Loa	ding:						

		Table 9	A-2 Fire Hazar	d Ana	lysis Su	mma	ry (Sheet 282 of	306)		
Fire Zone: FA6-	101-08									
Building:		Turbine	Area Desig	gnation:	Turbine	Buildi	ing		pplicable Regulatory and Code]
Floor(s):	1F	to Roof							BC, RG 1.189; NFPA 10, 14, 72 and	1
Fig. F	0.4.1	21 to 9A-26	Zone Desiç	gnation:	FA6-101	1-08 St	airwell	8	04	
Fig: Sect:		3. 96 143	Associated Safety Di	vision(s))	1	N			MIC-03-09-
			-		'					00015
		Wall	Floor		Ceiling		Fire Barrier Descrip			
Adjacent Fire Z	ones:	FA6-101-02	FA6-101-01		Roof				urrounds the stairwell shaft. All	
(Primary Inter face Listed See Table 9A-3		FA6-101-07 FA6-101-13							n the shaft are protected for Doors to the stairwell are rated to	
For Complete Listing)		FA6-101-13	See Table 9A-3						e. The stair well is designed to	
Tor complete Lieung)	L	170-101-17	Gee Table 3A-3	1			meet IBC requirem		e. The stair well is designed to	
Po	tential C	Combustibles					1			_
Item	ansient		Release (Btu) 9.3E+04				on – Primary tic detection.		Fire Detection - Backup	
				Eiro	Fire Su Hose Stat		sion – Primary	Dor	Fire Suppression - Backup	-
				Fire	Hose Star	tion		Por	table Fire Extinguisher	-
					Γ		Fi	re Imp	act to Zone	
							ession System Opera	tes	Suppression System Fails to Op.	
							in this area credibly		There is no safe-shutdown	
Fire 7ee	no Com	bustible Summa	m/	Flo			es transient materia		circuit in this zone to be	
FIIE ZOI	ne Com	bustible Summa	T y	Ar	- 1		personnel would no involving and initiate		damaged.	
			Btu/ft ²	(ft	- 1		ession using portab			
Anticipated Combusti	ble Load	ding:	nil	("		exting	uishers or manual h			
Maximum Anticipated	Combus Load		3.7E+02	25	50	Su edi	ns belote damaye.			

	Table 9	A-2 Fire Haza	rd Anal	ysis S	umma	ry (Sheet 283 of 3	306)		
Fire Zone: FA6-101-09									
	Turbine	Area Desi	gnation:	Turbin	e Buildi	ng		pplicable Regulatory and Code ef(s):	
Floor(s):	F to 3F]					IE	BC, RG 1.189; NFPA 10, 14, 72 and	-
Fig: 9A- 2	21 to 9A-23	Zone Desi	gnation:	FA6-10	01-09 St	airwell	8	04	
	3. 96 143	Associated Safety D	ivision(s)			N	<u> </u>		MIC-03-09- 00015
Γ	Wall	Floor	T C	eiling		Fire Barrier Descript	tion:		1
Adjacent Fire Zones:	FA6-101-03	-		Roof		A two hour fire bar	rier s	urrounds the stairwell shaft. All	
(Primary Inter face Listed See Table 9A-3	FA6-101-14 FA6-101-18							the shaft are protected for	
For Complete Listing)	FA6-101-18						stance	Doors to the stairwell are rated to e. The stair well is designed to	
Potential (Combustibles					meet ibc requirem	ents.]
Item Transient		Release (Btu)		Fire	Detection	on – Primary		Fire Detection - Backup]
			Fire	Fire S Hose St		sion – Primary	Por	Fire Suppression - Backup table Fire Extinguisher	
						Fir	e Imp	act to Zone	1
						ession System Operat	tes	Suppression System Fails to Op.]
						in this area credibly es transient materia		There is no safe-shutdown circuit in this zone to be	
Fire Zone Com	bustible Summa	ry	Flo	-	which	personnel would no	tice	damaged.	
		Btu/ft ²	(ft ²			nvolving and initiate ession using portabl			
Anticipated Combustible Load	ding:	nil	('	exting	uishers or manual h			
Maximum Anticipated Combus Load		2.3E+02	40	0	stream	ns before damage.			

		Table 9	A-2 Fire Hazar	d Anal	lysis Sι	ummar	/ (Sheet 284 of	306)		
Fire Zone: FA6-101	-11									
Building:	Turbir	ne	Area Desiç	gnation:	Turbine	e Buildin	g		pplicable Regulatory and Code lef(s):	
Floor(s):	1F to R	oof]		F40.40	4 44 01		IE	BC, RG 1.189; NFPA 10, 14, 72 and	
Fig:	9A-21 to 9	9A-26	Zone Desig	gnation:	FA6-10	11-11 Sta	rweii	8	04	
Sect:	3. 96 14		Associated Safety Di	vision(s))	N				MIC-03-09- 00015
		Wall	Floor	T C	Ceiling		Fire Barrier Descrip	otion:]
Adjacent Fire Zone		5-101-02	-		Roof				urrounds the stairwell shaft. All	1
(Primary Inter face	-	5-101-13							n the shaft are protected for	
Listed See Table 9A-3 For Complete Listing)	_	6-101-17 6-101-19							Doors to the stairwell are rated to e. The stair well is designed to	
Tor complete Listing)	IAC	7-101-19					meet IBC requirer		e. The stair well is designed to	
	ıtial Combı									<u>.</u>
Item	sient Only		Release (Btu) 9.3E+04				– Primary c detection.		Fire Detection - Backup	
				Fire	Fire Si Hose Sta		on – Primary	Por	Fire Suppression - Backup table Fire Extinguisher	
							F	ire Imp	act to Zone	
					•		sion System Opera	ates	Suppression System Fails to Op.	
							this area credibly transient materi	•	There is no safe-shutdown circuit in this zone to be	
Fire Zone	Combustib	le Summa	ıry	Flo	or		ersonnel would n		damaged.	
			Btu/ft ²	Are			volving and initia			
Anticipated Combustible	Loading:		nil	(ft ²	²)		ssion using portal ishers or manual			
Maximum Anticipated Cor	Ū		1.9E+02	50	10		before damage.			
Maximum / introspated Ool	Loading:		1102-02							

	Table 9	A-2 Fire Hazar	d Anal	ysis Su	ımmaı	ry (She	et 285 of 3	06)		
Fire Zone: FA6-101-12		_								_
Building:	Turbine	Area Desig	gnation:	Turbine	Buildi	ng			oplicable Regulatory and Code ef(s):	
Floor(s):	1F	Zone Desig	nation:	Samplii	na Roo	m		IE	C, RG 1.189; NFPA 10, 14, 72 and	-
Fig:	9A-21]							,-	MIC-03-09-
Sect:	3. 96 143	Associated Safety Di	vision(s)			N				00015
	Wall	Floor		eiling			rrier Description			
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA6-101-02	FA6-101-01	FA6	3-101-13		and po	wer source by penetrations	uildi and	eparated from the adjacent R/B ng with a 3-hour fire rated wall openings protected to 3-hour fire re not assigned a fire rating.	
	Combustibles	Dalagae (Dtu)		Fina F	-	- D-i			Fine Detection Dealum	ן ה
Item Transient		Release (Btu) 9.3E+04	Thor	Fire L e is no a		n – Prim		Mar	Fire Detection - Backup	
			Fire	Fire Su Hose Sta		ion – Pri	mary	Por	Fire Suppression - Backup table Fire Extinguisher	-
					Cuppre	agaign S	Fire		act to Zone Suppression System Fails to Op.	
				-			rea credibly		There is no safe-shutdown	+
	<u> </u>						ient material		circuit in this zone to be	
Fire Zone Com	bustible Summa	ry	Flo	-			nel would not		damaged.	
		Btu/ft ²	Are (ft ²		suppr	ession i	g and initiate Ising portable)		
Anticipated Combustible Loa	ding:	nil					or manual ho	se		
Maximum Anticipated Combus	stible ding:	4.4E+01	2,1	00	Jucan	is beioi	o damaye.			

Loading:

Table 9A-2 Fire Hazard Analysis Summary (Sheet 286 of 306)

			•		• `	ŕ		
Fire Zone: FA6-101-13 Building:	Turbine	Area Desi	gnation: T	urbine Bui	lding		pplicable Regulatory and Code ef(s):	
Floor(s):	2F	Zone Desi	gnation: T	urbine Bui	lding 2F Floo	IB	SC, RG 1.189; NFPA 13, 14, 72 and 04	
Fig: Sect:	9A-22 3. 96 143	Associated Safety D	vivision(s)		N			MIC-03-09 00015
Adjacent Fire Zones: Primary Inter face isted See Table 9A-3 or Complete Listing)	Wall FA6-101-05 FA6-101-06 FA6-101-07 FA6-101-08	Floor FA6-101-02 FA6-101-12 See Table 9A-3	Ceili FA6-10		The turbing and power with all per	er source building enetrations and	eparated from the adjacent R/B ng with a 3-hour fire rated wall openings protected to 3-hour fire are not assigned a fire rating.	
Item		Release (Btu) 4.2E+04	There is		ction – Primary		Fire Detection - Backup	- -
Gen Load Breaker and S G	tation rease be Oil	1.1E+05 2.9E+06 9.4E+04 2.6E+06		o no aaton				
High Voltage C Low Voltage C	ables	3.9E+05 3.1E+08 2.4E+08		Fire Suppre pe Sprinkle	ession – Prima er		Fire Suppression - Backup Hose Station	
Control C Instrumentation C	ables	4.2E+08 3.7E+08						MIC-03-09 00015
				0			act to Zone	
				The	pression Systemeters wet-pipe extitem provides		Suppression System Fails to Op. There is no safe-shutdown circuit in this zone to be	
Fire Zone Con	nbustible Summa	,	Floor Area	pre	vent a severe a. This will mi	fire in this	damaged.	
Anticipated Combustible Loa	adina:	Btu/ft ² 2.2E+04	(ft ²)		nage from a se			
Maximum Anticipated Combu	•	2.7E+04	60,050					

Table 9A-2 Fire Hazard Analysis Summary (Sheet 287 of 306)

Building:	Turbine	Area Desi	gnation: T	urbine Bu	ilding		pplicable Regulatory and Code ef(s):]
Floor(s):	2F	╛			(0.5)	IB	BC, RG 1.189; NFPA 13, 14, 72 and	-
Fig:	9A-22	Zone Desi	gnation: E	lectrical R	Room (2F)	80	04	
Sect:	3. 96 143	Associated Safety D	ivision(s)		N			MIC-03-0 00015
	Wall	Floor	Ceili		Fire Barrier Descript			MIC-03-0
Adjacent Fire Zones: (Primary Inter face	FA6-101-07 FA6-101-09	FA6-101-03	FA6-10 Roo				parated from the adjacent turbine ire areas with a 3-hour fire rated	00015
Listed See Table 9A-3	FA6-101-09	See Table 9A-3	Ko	OI			s and openings protected to 3-	
For Complete Listing)	FA6-101-15				hour fire resistance			
Potential	Combustibles							
Item		t Release (Btu)			ction – Primary		Fire Detection - Backup	
	attery	1.4E+07 5.2E+06	There is	s no autor	natic detection.	Man	nual Fire Alarm Pull Station	
Switchgear and Control (narger Center	3.2E+07						
High Voltage C		5.2E+07						
Low Voltage C		3.9E+07						
Control C		6.9E+07			ession – Primary		Fire Suppression - Backup	T
Instrumentation C	Cables	6.0E+07			ler Double-interlock		re is no backup suppression	MIC-03-0
			pre-act	ion suppr	ession system	syst	tem.Fire Hose Station	00015
							act to Zone	
					pression System Opera quickly identified and	tes	Suppression System Fails to Op. There is no safe-shutdown	4
					pressed fire will serve	to	circuit in this fire zone to be	
Fire Zone Cor	nbustible Summ	arv	Floor		nimize adverse impact		damaged.	
= = = = = = = = = = = = = = = = =			Area		overy cost after a fire.	una	damagea.	
		Btu/ft ²	(ft ²)		overy coordinate a mor			
Anticipated Combustible Loa		6.4 <u>2.1</u> E+04						MIC-03-0 00015
Maximum Anticipated Combu	ustible ading:	7.7 2.5E+04	12,850					

Table 9A-2 Fire Hazard Analysis Summary (Sheet 288 of 306)

Fire Zone: FA6	-101-15			
Building:	Turbine	Area Designation:	Turbine Building	Applicable Regulatory and Code
				Ref(s):
Floor(s):	2F			IBC, RG 1.189; NFPA 13, 14, 72 and
_		Zone Designation:	FA6-101-15 Zone	804
Fig:	9A-22			
Sect:	3. 96 143	Associated Safety Division(s)	N	

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor	Ceiling
FA2-102-01	FA6-101-04	Roof
FA2-108-01		
FA2-202-01		
FA2-205-01	See Table 9A-3	
FA6-101-02		
FA6-101-03		
FA6-101-07		
FA6-101-08		

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.

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Potential Combustibles	
Item	Heat Release (Btu)
Gasket Grease Instruments	4.0E+04 1.8E+05 1.6E+06
High Voltage Cables Low Voltage Cables Control Cables Instrumentation Cables	4.5E+07 3.4E+07 6.1E+07 5.3E+07

Fire Zone Combustible Summary	
	Btu/ft ²
Anticipated Combustible Loading:	2. <mark>3</mark> 2E+04
Maximum Anticipated Combustible Loading:	2.7E+04

Fire Detection - Backup
Manual Fire Alarm Pull Station
Fire Suppression - Backup
Fire Hose Station

Fire Impact to Zone

	Suppression System Operates	Suppression System Fails to Op.
	The wet-pipe extinguishing	There is no safe-shutdown
_	system provides protection to	circuit in this fire zone to be
	prevent a severe fire in this	damaged.
	area. This will minimize	
	damage from a severe fire.	

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Floor Area (ft²)

8,60750

	lable s	IA-2 Fire Haza	rd Anai	iysis Sum	mary (Sheet 289 of)	306)	
		Area Desi	esignation: Turbine Building		uilding	Applicable Regulatory and Code Ref(s):]
Floor(s):	2F	Zone Desi	one Designation: Turbi		ube Oil Tank Room	IBC, RG 1.189; NFPA 13, 14, 72 and 804	
Fig: Sect:	9A-22 3. 96 <u>143</u>	Associated Safety D	ivision(s)		N		MIC-03-09- 00015
Adjacent Fire Zenes	Wall FA6-101-13	Floor FA6-101-02		Ceiling 6-101-17	Fire Barrier Descript	tion: ng is separated from the adjacent R/B	
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA6-101-15	FA6-101-02	FAC	5-101-17	and power source with all penetration	building with a 3-hour fire rated wall as and openings protected to 3-hour fire bine oil tank room protected with 3-hour	
	Combustibles	D. I. (DI.)		E: 5 (5.0.0	<u>-</u>
Item		Release (Btu) 4.6E+09	Thor		ection – Primary matic detection.	Fire Detection - Backup Manual Fire Alarm Pull Station	
			Wet	Fire Supp Pipe Sprink	ression – Primary ler	Fire Suppression - Backup Fire Hose Station	
					Fir	re Impact to Zone	-
				Su	ippression System Operat		
					e wet-pipe extinguishin		
Fire Zone Com	bustible Summa	ry	Flo	or pr	stem provides protectio event a severe fire in thi ea. This will minimize		
		Btu/ft ²	(ft		mage from a severe fire).	
Anticipated Combustible Load	ding:	1.9E+06	,				
Maximum Anticipated Combus Loa	stible ding:	2.3E+06	2,4	00			

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 290 of 306)

Fire Zone: FA6	-101-17				
Building:	Turbine	Area Designation:	Turbine Building		Applicable Regulatory and Code
					Ref(s):
Floor(s):	3F	1			IBC, RG 1.189; NFPA 13, 14, 72 and
•		Zone Designation:	Turbine Building 3F F	loor	804
Fig:	9A-23]			
Sect:	3. <mark>96</mark> 143	Associated Safety Division(s)	N		

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 Instruments Panel Rubber High Voltage Cables Low Voltage Cables Control Cables	7.2E+06 3.5E+05 4.1E+07 1.1E+05 3.3E+08 2.5E+08 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		

	Suppression System Operates	Suppression System Fails to Op.
	The wet-pipe extinguishing	There is no safe-shutdown
	system provides protection to	circuit in this fire zone to be
Floor	prevent a severe fire in this	damaged.
Area	area. This will minimize	-
(ft ²)	damage from a severe fire.	
(-)	_	
62,900		

Fire Impact to Zone

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	Table 9	A-2 Fire Hazaı	d Anal	ysis S	Summa	ry (She	et 291 of 3	306)		
Floor(s): Fig: Sect: Adjacent Fire Zones:	9A-23 .96143 Wall	Zone Design Associated Safety D Floor FA6-101-14	gnation: ivision(s)	Secui	ne Build	n (FA6-1 N Fire Ba The tu	arrier Descript	R IE 8	pplicable Regulatory and Code ef(s): 3C, RG 1.189; NFPA 10, 14, 72 and 04 eparated from the adjacent R/B	MIC-03-09- 00015
(Primary Inter face Listed See Table 9A-3 For Complete Listing)						with al	I penetration	is and	ng with a 3-hour fire rated wall openings protected to 3-hour fire are not assigned a fire rating.	
Item	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							
			Port		Suppress re Exting		mary		Fire Suppression - Backup re is no backup suppression tem.	
							Fir ystem Operat rea credibly	tes	act to Zone Suppression System Fails to Op. There is no safe-shutdown	
Fire Zone Combustible Summary				Floor whi		involves transient material which personnel would not a fire involving and initiate		tice		
Anticipated Combustible Load	ling:	Btu/ft ²	(ft ²)		suppression using por extinguishers or manu		ising portab	ole		
Maximum Anticipated Combusi Load	tible	2.3E+02	40	00			e damage.			

00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 292 of 306)

Fire Zone: **FA6-101-19 Turbine Building** Building: Turbine Area Designation: Applicable Regulatory and Code Ref(s): 4F+ IBC, RG 1.189; NFPA 10, 14, 72 and Floor(s): **Turbine Building Operation** Zone Designation: 804 9A-24, 9A-25 Fig: Floor Sect: 3.96143 Associated Safety Division(s)

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	Portable Fire Extinguisher
Wet Pipe Sprinklers on Bearings	

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
52,650

Fire Impa	act to Zone
Suppression System Operates	Suppression System Fails to Op.
A fire in this area credibly	There is no safe-shutdown
involves small amount of	circuit in this zone to be
materials which personnel	damaged.
would notice a fire involving	_
and initiate fire suppression	
using portable extinguishers	
or manual hose streams	
before damage.	
notice damage.	

	Table 9	A-2 Fire Haza	rd Analy	ysis Summa	ary (Sheet 293 of	306)		
Floor(s):	Turbine 4F 9A-24 3.96143 Wall FA6-101-19	Area Desi Zone Desi Associated Safety D Floor FA6-101-17	ignation: [Division(s)	Turbine Build Tool Room (I	Fire Barrier Descript The turbine buildin and power source with all penetration	Ref(s) IBC, F 804 ion: g is separabuilding was and open	RG 1.189; NFPA 10, 14, 72 and rated from the adjacent R/B with a 3-hour fire rated wall enings protected to 3-hour fire	MIC-03-09 00015 MIC-03-09 00015
Potential (Potential Combustibles Item Heat Release (Btu) Transient Only 9.3E+04 The			e is no automa	Detection – Primary Fire Detection - Backup Manual Fire Alarm Pull Station Suppression – Primary Fire Suppression - Backup Portable Fire Extinguisher			
Anticipated Combustible Loa Maximum Anticipated Combus		Btu/ft ² nil 1.2E+02	Floo Are (ft ²	A fire involution in the involution whice a fire suppression extra	Fir ression System Operate in this area credibly ves transient materia h personnel would no involving and initiate ression using portabl guishers or manual h ms before damage.	Th I cir otice da e fire le	to Zone uppression System Fails to Op. nere is no safe-shutdown rcuit in this zone to be amaged.	

	Table 9	A-2 Fire Hazar	d Anal	ysis Sum	mary (Sheet 294 o	f 306)		
Fire Zone: FA6-101-21								
Building:	Turbine	Area Desig	nation:	Turbine B	uilding		pplicable Regulatory and Code lef(s):	
Floor(s):	4F	Zone Desig	unation:	Tool Boon	n (FA6-101-21)		BC, ŔG 1.189; NFPA 10, 14, 72 and 04	
Fig:	9A-24		mation.	10011001	ii (i A0-101-21)		04	
Sect:	3. 96 143	Associated Safety Di	vision(s)		N			MIC-03-09- 00015
	Wall	Floor		eiling	Fire Barrier Descr]
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA6-101-19	FA6-101-17	FA6	3-101-19	and power source with all penetration	e buildi ons and	eparated from the adjacent R/B ng with a 3-hour fire rated wall I openings protected to 3-hour fire are not assigned a fire rating.	
	Combustibles							J -
Item Transien		Release (Btu) 9.3E+04			ection – Primary matic detection.		Fire Detection - Backup	
			Fire	Fire Supp Hose Statio	ression – Primary n	Por	Fire Suppression - Backup table Fire Extinguisher	
					ippression System Oper	rates	act to Zone Suppression System Fails to Op.	-
					fire in this area credib		There is no safe-shutdown	
Fire Zone Cor	nbustible Summa	ry	Flo	or wi	volves transient mater nich personnel would	notice	circuit in this zone to be damaged.	
		Btu/ft ²	Are (ft ²		fire involving and initian portain in the portain in the inversal on the interior in the inter			
Anticipated Combustible Loa	ading:	nil	(,,,	ex	tinguishers or manual	l hose		
Maximum Anticipated Combu Loa	ustible ading:	4.4E+01	2,1	00 st	reams before damage.	•		

	Table 9	A-2 Fire Haza	rd Analy	sis Sum	imary (Sheet 295 of	306)		
Fire Zone: FA6-101-22								
Building:	Turbine	Area Desi	gnation:	Turbine B	uilding	1 1 -	plicable Regulatory and Code f(s):	
Floor(s):	Roof	Zone Desi	gnation:	Security F	Room (FA6-101-22)	IB0 80	C, RG 1.189; NFPA 10, 14, 72 and 4	
Fig:	9A-26]] , MIC-03-09
Sect:	3. 96 143	Associated Safety D	ivision(s)		N			00015
	Wall	Floor	Ce	eiling	Fire Barrier Descrip	ntion:		7
Adjacent Fire Zones:	FA6-101-05	FA6-101-19		oof			parated from the adjacent R/B	_
(Primary Inter face Listed See Table 9A-3 For Complete Listing)			and power source but with all penetrations a		building with a 3-hour fire rated wall ns and openings protected to 3-hour fire walls are not assigned a fire rating.			
Potential	Combustibles							
Item Transients		Release (Btu) 9.3E+04			tection – Primary omatic detection.		Fire Detection - Backup ual Fire Alarm Pull Station	
			Portal		oression – Primary ctinguisher		Fire Suppression - Backup -	
							ct to Zone	
					uppression System Opera		Suppression System Fails to Op.	
					fire in this area credibly volves transient materia		There is no safe-shutdown circuit in this zone to be	
Fire Zone Con	nbustible Summa	ıry	Floo	or w	hich personnel would no	otice	damaged.	
		Btu/ft ²	(ft ²)	้ รเ	fire involving and initiate uppression using portab	ole		
Anticipated Combustible Loa		nil	, ,	ex	ktinguishers or manual h reams before damage.	hose		
Maximum Anticipated Combu Loa	stible ading:	3.7E+02	250		ieams belote damage.			

		Table 9	PA-2 Fire Haza	ard Anal	lysis Sur	nmary (Sh	eet 296 of 3	306)		
Fire Zone: I Buildin	FA6-101-23 ng:	Turbine	Area Des	signation:	Turbine	Building		Ap	oplicable Regulatory and Code	7
Floor(s	s):	Roof						Ref(s): IBC, RG 1.189; NFPA 10, 14, 72 and		
	ig:	9A-26	Zone Des			Room (FA6-	101-23)	80		MIC-03-0
Se	Сі. [3. 96 143 Wall	Associated Safety I			N Fire B	arrier Descript	tion:		00015
Adjacent F (Primary Inter face Listed See Table 9 For Complete List	9A-3	FA6-101-06	FA6-101-19		Roof Fire Barrier Description: The turbine building is separated from the adjact and power source building with a 3-hour fire rat with all penetrations and openings protected to resistance. Other walls are not assigned a fire rate.		ng with a 3-hour fire rated wall openings protected to 3-hour fire	_		
Ite		Combustibles	Release (Btu)		Fire D	etection – Prir	mon/	1	Fire Detection - Backup	- -
	Transients		9.3E+04			ppression – Pi			Fire Suppression - Backup	
									act to Zone	
					7	A fire in this	System Operat area credibly sient materia		Suppression System Fails to Op. There is no safe-shutdown circuit in this zone to be	_
Fir	e Zone Com	bustible Summa		Flo Are	- 1 -		nnel would no		damaged.	
Anticipated Com	bustible Loa	dina:	Btu/ft ²	(ft	2)	suppression	using portabl	le		
Maximum Anticipa	ated Combus	<u> </u>	3.1E+02	30		extinguishers or manual hose streams before damage.				

		Table 9	A-2 Fire Haz	ard Anal	ysis Su	mma	ry (Sheet 297 of 3	306)		
Fire Zone: FA7-10 Building: Floor(s): Fig: Sect:	B1F 9A-27 3. 97 14	Funnel	Area De Zone De Associated Safety	esignation: esignation: Division(s)	ESW Pip ESW Pip A-ESW Ainclud	ping Tope Cha Piping ing ES	unnel including ase Tunnel sW Pipe Chase	A _I Re	oplicable Regulatory and Code ef(s): sc, RG 1.189; NFPA 10, 72 and 804	MIC-03-09- 00015 MIC-03-09- 00015
Adjacent Fire Zo (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA2 FA2 FA3 FA7	Vall -102-01 -104-01 -101-01 -102-01 -128-01	Floor FA7-10 <u>32</u> -01 FA7-104-01	FA7	Ceiling 7-102-01 7-103-01 7-104-01		concrete walls, floo of 3-hour fire resist	nnels or and ance nd pe	are constructed with reinforced ceiling which provide in excess capability as defined in ASTM Enetrations are protected for 3-	MIC-03-09- 00015
Item	sients Only		Release (Btu)	Ther	e is no au	utomat	on – Primary ic detection.	Man	Fire Detection - Backup ual Fire Alarm Pull Station	
				Port	Fire Su able Fire I		ion – Primary uisher	The syst	Fire Suppression - Backup re is no backup suppression tem.	
						A quic	ession System Operate kly identified and	es	act to Zone Suppression System Fails to Op. A fire has the potential to	MIC-03-09-
Fire Zone	e Combustib	e Summa	•	Flo Are	or	dama	essed fire will minim ge and after event ip. Portable fire	ize	damage safe-shutdown functions associated with safety train A. Train B, C and D remain	00001
Anticipated Combustib	le Loading:		Btu/ft ²	(ft	²)		uishers are available	e in	free from the damage.	
Maximum Anticipated C	combustible Loading:		nil	14,3 <u>1,4</u>						MIC-03-09- 00015

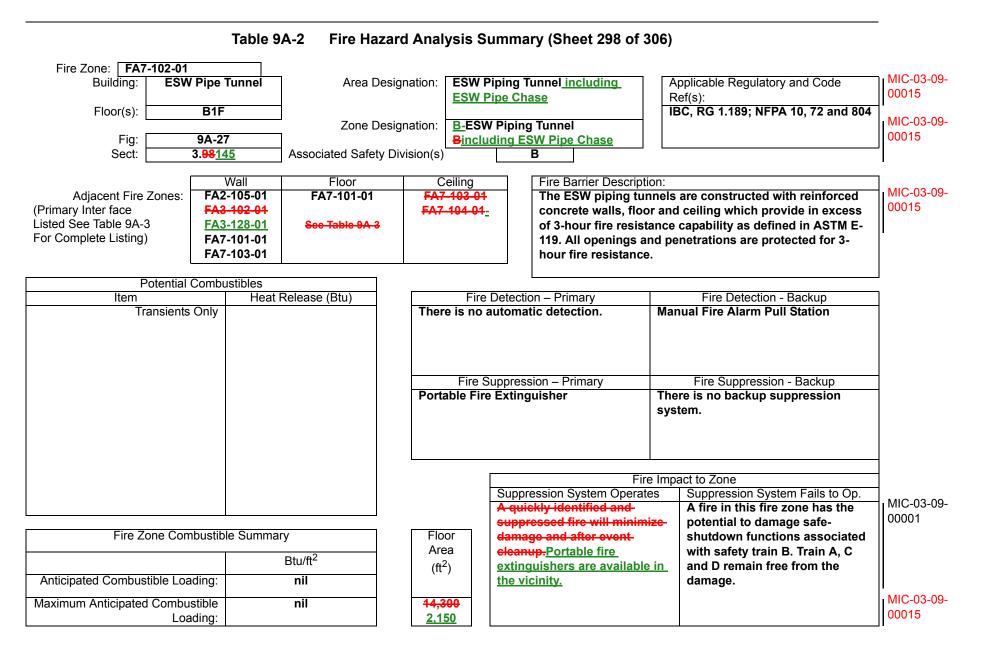


	Table 9	A-2 Fire Hazar	d Analy	ysis Sumı	mary (Sheet 299 o	f 306)		
Fire Zone: FA7-103-01 Building: ESW Floor(s):	/ Pipe Tunnel	Area Desig		ESW Pipe		Ref(licable Regulatory and Code s): , RG 1.189; NFPA 10, 72 and 804	MIC-03-09- 00015 MIC-03-09-
Fig: Sect:	9A-27 3. 99 146	Zone Desig Associated Safety Di			ping Tunnel 1 ESW Pipe Chase C			00015
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	Wall FA2-106-01 FA3-108-01 FA7-101-01 FA7-1024-01	Floor FA7-101-01 FA7-102-01 FA7-104-01 See Table 9A-3	FA7 FA7 FA7	eiling 	concrete walls, fl of 3-hour fire res	tunnels are loor and co sistance ca s and pene	e constructed with reinforced eiling which provide in excess pability as defined in ASTM E- strations are protected for 3-	MIC-03-09- 00015
Potential Item Transients		Release (Btu)	There		ection – Primary matic detection.	Manua	Fire Detection - Backup al Fire Alarm Pull Station	
			Porta	Fire Suppi able Fire Ext	ression – Primary tinguisher		Fire Suppression - Backup is no backup suppression n.	
Fire Zone Con	nbustible Summa		Floo Are	or da	ppression System Oper quickly identified and ppressed fire will min mage and after event vanup.Portable fire	imize p	to Zone Suppression System Fails to Op. A fire in this fire zone has the potential to damage safeshutdown functions associated with safety train C. Train A, B	MIC-03-09- 00001
Anticipated Combustible Loa	ading:	Btu/ft ²	(ft ²	ext	tinguishers are availa e vicinity.	<u>ble in</u> a	and D remain free from the lamage.	
Maximum Anticipated Combu Loa	stible ading:	nil	44,3 2,90					MIC-03-09- 00015

Table 9A-2 Fire Hazard Analysis Summary (Sheet 300 of 306)

Fire Zone: **FA7-104-01** MIC-03-09-ESW Piping Tunnel including Building: **ESW Pipe Tunnel** Area Designation: Applicable Regulatory and Code 00015 **ESW Pipe Chase** Ref(s): IBC, RG 1.189; NFPA 10, 72 and 804 Floor(s): B1F MIC-03-09-Zone Designation: D-ESW Piping Tunnel 00015 9A-26 Fig: **Dincluding ESW Pipe Chase** Sect: 3.10047 Associated Safety Division(s)

Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)

Wall	Floor Wall	Ceiling
FA2-107-01	FA7-101-01	FA7-103-01
FA3-110-01	FA7-102-01	FA7-401-01
FA7-101-01	FA7-103-01	FA7-402-01
FA7-102-01	FA3-111-01	FA7-403-01
FA2-108-01	FA3-111-02	
FA3-108-01	FA3-112-01	
FA3-110-01	See Table 9A-3	

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.

Potential Combustibles

Item Heat Release (Btu)

Transients Only

Fire Zone Combustible Summary					
	Btu/ft ²				
Anticipated Combustible Loading:	nil				
Maximum Anticipated Combustible	nil				
Loading:					

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 Impact to Zone								
Suppression System Operates	Suppression System Fails to Op.							
A quickly identified and	A fire in this fire zone has the							
suppressed fire will minimize-	potential to damage safe-							
damage and after event	shutdown functions associated							
cleanup.Portable fire	with safety train D. Train A, B							
extinguishers are available in	and C remain free from the							
the vicinity.	damage.							

MIC-03-09-00001

MIC-03-09-

00015

MIC-03-09-00015

Floor Area (ft²)

14,300

1,950

Table 9A-2 Fire Hazard Analysis Summary (Sheet 301 of 306)

Fire Zone: F	A7-401-01					
Building	g: O/B	Area Designation:	Power S	Source Fuel S	torage	Applicable Regulatory and Code
			Vault			Ref(s):
Floor(s):					IBC, RG 1.189; NFPA 10, 13, 14, 30,
		Zone Designation:	A-Class	1E GTG Pow	er Source	72 and 804
Fig	g: 9A-27		Fuel Sto	rage Vault		
Sec	t: 3. 97 148	Associated Safety Division(s)		Α	,	

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.

Pote	ntial Combu	ıstibles
Item		Heat Release (Btu)
	Fuel oil	1. 7 9E+10

Fire Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	9.2 1.0E+0 6 7
Maximum Anticipated Combustible	-
Loading:	

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.

Suppression System Operates Suppression System Fails to C	
	nage
The dry-pipe sprinkler system A fire has the potential to dar	
will suppress the fire in this vault and access tunnel and will minimize fire damage to the safety-related equipment consistent with GDC-3. the safe-shutdown functions associated with safety train Train B, C and D remain free the damage to achieve safeshutdown.	A. from

MIC-03-09-00015

Tier 2 9A-627 Revision 3

Floor Area (ft²)

1850

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MIC-03-09-00015

00010

Table 9A-2 Fire Hazard Analysis Summary (Sheet 302 of 306)

Fire Zone: **FA7-402-01** Building: O/B Area Designation: **Power Source Fuel Storage** Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 Floor(s): Vault **B-Class 1E GTG Power Source** Zone Designation: and 804 Fig: 9A-27 **Fuel Storage Vault** Sect: 3.97149 Associated Safety Division(s) В Fire Barrier Description:

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		

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.

Fire Impact to Zone

Potential Comb	ustibles
Item	Heat Release (Btu)
Fuel oil	1. 7 9E+10

Fire Zone Combustib	le Summary
	Btu/ft ²
Anticipated Combustible Loading:	<u>9.21.0</u> E+0€ <u>7</u>
Maximum Anticipated Combustible Loading:	-

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.

Suppression System Operates	Suppress
The dry-pipe sprinkler	A fire has
system will suppress the fire	the safe-
in this vault and access	associate
tunnel and will minimize fire	Train A,
damage to the safety-related	the dama
equipment consistent with	shutdow
GDC-3.	

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.

MIC-03-09-00015

MIC-03-09-

MIC-03-09-00015

00015

Tier 2 9A-628 Revision 3

Floor

Area

 (ft^2)

1850

Fire Zone: FA7-403-01							
Building:	O/B	Area Des	signation: Power Source Fuel Storage Vault		rce Fuel Storage	Applicable Regulatory and Code Ref(s):	
Floor(s):]				IBC, RG 1.189; NFPA 10, 13, 14, 30,	1
Fig:	9A-27	Zone Des	ignation:	A-AAC GTO Storage Va	G Power Source Fuel	72 and 804	
	3. <mark>97</mark> 150	Associated Safety D)ivision(s)		N		[⊥] MIC-03-09-
] / 10000101001 0011015	(0)				00015
	Wall	Floor	С	eiling	Fire Barrier Descripti		
Adjacent Fire Zones:	FA3-105-03	FA7-103-01		-		concrete or other material providing a	
(Primary Inter face Listed See Table 9A-3	FA7-102-01 FA7-103-01	FA7-104-01				e resistance rating form the boundaries oor to the room is 3-hour fire rated and	
For Complete Listing)	FA7-401-01					enetrations into the room are rated to	
3,	.,				provide 3-hour fire		
Potential	Combustibles				-		
Item		Release (Btu)			ection – Primary	Fire Detection - Backup	MIC-03-09-
Fu	el oil ,	I. <mark>7<u>9</u>E+10</mark>	Vapo	or and Liquid	Detection	Manual Fire Alarm Pull Station	00015
						located in the tunnel from the PS/B.	00010
					ession – Primary	Fire Suppression - Backup	
			Dry-l	Pipe Sprinkle	er	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.	
							1
						e Impact to Zone	
					ppression System Operate		4
					e dry-pipe sprinkler syst I suppress the fire in thi		
Fire Zone Combustible Summar		rv	Flo		om and will minimize fire		
	1		Are		mage to the safety-relate	1 0	
		Btu/ft ²	(ft ²		uipment consistent with		
Anticipated Combustible Loa	ding: 9.	2 <u>1.0</u> E+0 <u>67</u>	(it		C-3.		MIC-03-09-

	Table 9	A-2 Fire Haza	rd Anal	lysis S	ummary (Sheet 304 of 3	06)	
Fire Zone: FA7-404-01							
Building:	O/B	Area Desi	gnation:	Power Vault	Source Fuel Storage	Applicable Regulatory and Code Ref(s):	
Floor(s):		Zone Desi	gnation:		s 1E GTG Power Source	IBC, RG 1.189; NFPA 10, 13, 14, 30, 72 and 804	
Fig:	9A-27	<u> </u>			torage Vault		∐ , MIC-03-09-
Sect:	3. 97 <u>151</u>	Associated Safety D	ivision(s))	С		00015
	Wall	Floor		Ceiling	Fire Barrier Description	on:	7
Adjacent Fire Zones:	FA3-109-02	FA7-103-01		-		concrete or other material providing a	-
(Primary Inter face	FA7-102-01	FA7-104-01				e resistance rating form the boundaries	
Listed See Table 9A-3	FA7-103-01					oor to the room is 3-hour fire rated and	
For Complete Listing)	FA7-405-01				all openings and pe	netrations into the room are rated to resistance.	
Potential	Combustibles						_
Item		Release (Btu)			Detection – Primary	Fire Detection - Backup	MIC-03-09-
Fu	iel oil '	I. <mark>7</mark> 9E+10	Vapo	or and L	quid Detection	Manual Fire Alarm Pull Station located in the tunnel from the PS/B.	00015
					uppression – Primary	Fire Suppression - Backup	
			Dry-	Pipe Sp	rinkler	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.	
					Fire	e Impact to Zone	_
					Suppression System Operate		-
					The dry-pipe sprinkler syst		
Fire Zone Com	bustible Summa	ry	Flo	or	will suppress the fire in this room and will minimize fire		
		Btu/ft ²	Are		damage to the safety-relate		
Anticipated Combustible Loa	ding: 9.	21.0E+067	(ft	²)	equipment consistent with GDC-3.	free from the damage to achieve safe-shutdown.	MIC-03-09-
Maximum Anticipated Combu Loa	stible ding:	-	18	50			00015

	Table 9	A-2 Fire Haza	ard Anal	ysis Sun	nmary (Sheet	305 of 306	5)	
Fire Zone: FA7-405-01 Building: Floor(s):	O/B	Area Des	signation:	Power So Vault	ource Fuel Storaç	ge	Applicable Regulatory and Code Ref(s): IBC, RG 1.189; NFPA 10, 13, 14, 30,	
Fig:	9A-27 3. <mark>97</mark> 152	Zone Des Associated Safety I		Fuel Stor	IE GTG Power So age Vault	ource	72 and 804	MIC-03-09
	Wall	Floor	, ,	eiling	Fire Barrier	Description		00015
Adjacent Fire Zones: (Primary Inter face Listed See Table 9A-3 For Complete Listing)	FA3-111-02 FA7-102-01 FA7-103-01 FA7-404-01 FA7-406-01	FA7-103-01 FA7-104-01		•	minimum 3 of this roo all opening	3-hour fire rom. The doo	encrete or other material providing a esistance rating form the boundaries or to the room is 3-hour fire rated and etrations into the room are rated to sistance.	
Potential (Item	Combustibles	Release (Btu)		Fire De	etection – Primary		Fire Detection - Backup	<u>-</u> 7
Fu	el oil	1. 7 9E+10	Vapo	or and Liqu	id Detection		Manual Fire Alarm Pull Station ocated in the tunnel from the PS/B.	MIC-03-09- 00015
			Dry-F	Fire Sup Pipe Sprin	pression – Primar kler	N tr P a a	Fire Suppression - Backup Manual Hose Station located in the unnel from the PS/B. Portable fire extinguishers located as ppropriate for hazards and work ctivities during maintenance outages.	
				ī	Suppression Syste	m Operates nkler systen		
Fire Zone Com	bustible Summa	ry	Flo	or r	vill suppress the oom and will min	imize fire	damage the safe-shutdown functions associated with safety	
Anticipated Combustible Load	ding: 9.	Btu/ft ² 21.0E+067	Are (ft ²	²) e	amage to the sat quipment consis BDC-3.		train D. Train A, B and C remain free from the damage to achieve safe-shutdown.	MIC-03-09
Maximum Anticipated Combus	tible ding:	-	185	50				00015

Fire Zone: FA7-406-01		_		(-			_
Building:	O/B	Area Designation:		ea Designation: Power Source Fuel Storage Vault		Applicable Regulatory and Code Ref(s):	
Floor(s):]				IBC, RG 1.189; NFPA 10, 13, 14, 30,	
Fig:	9A-27	Zone Des	ignation:	B-AAC GT Storage Va	G Power Source Fuel	72 and 804	
	3. 97 153	Associated Safety [Division(s)		N		MIC-03-09
		_					00015
	Wall	Floor	C	Ceiling	Fire Barrier Descript		
Adjacent Fire Zones: (Primary Inter face	FA3-113-03 FA7-102-01	FA7-103-01 FA7-104-01		-		I concrete or other material providing a re resistance rating form the boundaries	
Listed See Table 9A-3	FA7-103-01	1 A7-104-01				loor to the room is 3-hour fire rated and	
For Complete Listing)	FA7-405-01					enetrations into the room are rated to	
			·		provide 3-hour fire	resistance.	
	Combustibles	Dologoo (Dtu)		Fire Deta	action Drimon.	Fire Detection, Deckup	٦
ltem Fu		Release (Btu) 1. 7 9 E+10	Fire Detection – Primary Vapor and Liquid Detection			Fire Detection - Backup Manual Fire Alarm Pull Station	MIC-03-09
1 4	Ci on	1.7 <u>0</u> 2.10	Vapo	or and Eigan	a Detection	located in the tunnel from the PS/B.	00015
				Fire Supp	ression – Primary	Fire Suppression - Backup	_
			Drv-	Pipe Sprinkl	er	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.	
					□ ir	re Impact to Zone	-
				Su	ppression System Operat		_
					e dry-pipe sprinkler sys		
	•				Il suppress the fire in th		
Fire Zone Combustible Summary		ıry	Flo		om and will minimize fire		
		Btu/ft ²	Are		mage to the safety-relat		
Austiniant of Complementible Lond	elia es		(ft ²	, , , ,	uipment consistent with	1	MIC-03-09
Anticipated Combustible Load		2 1.0E+0 6 7		GL	OC-3.		00015
Massinas una Austiniu ata d Onicelles	stible		18	50			
Maximum Anticipated Combus	ding:	-	10.				

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, <u>FA2-424-01</u> , FA2-507-01, FA2-601-02, FA3-1042-01, FA3-1034-03

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	MIC-03-09- 00015
	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	MIC-03-09- 00015
FA2-103-01	Ceiling	FA2- 202 104-01	
	Wall	FA2-102-01, FA2-104-01, FA2-111-01	
FA2-104-01	Ceiling	FA2-201-01, FA2-202-01	MIC-03-09-
	Floor	FA2-103-01	
	Wall	FA2-102-01, FA2-103-01, FA2-105-01, FA2-111-01, FA7-101-01	
FA2-105-01	Ceiling	FA2-201-01, FA2-203-01	MIC-03-09- 00015
	Wall	FA2-104-01, FA2-106-01, FA2-111-01, FA7-102-01	00015
FA2-106-01	Ceiling	FA2-204-01 <u>. FA2-206-01</u>	MIC-03-09- 00015
	Wall	FA2-105-01, FA2-107-01, FA2-112-01, FA7-103-01	00015
FA2-107-01	Ceiling	FA2-205-01 <u>, FA2-206-01</u>	MIC-03-09- 00015
	Wall	FA2-106-01, FA2-108-01, FA2-109-01, FA2-112-01, FA7-104-01	00015
FA2-108-01	Ceiling	FA2-205-01, FA2-206-01, FA2-423-01 FA2-509-01	MIC-03-09- 00015
	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, <u>FA6-101-15</u> , <u>FA7-104-01</u>	MIC-03-09- 00015
FA2-109-01	Ceiling	FA2 205 01FA2-112-01	
	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, FA2-42319-01, FA2-509-01, FA2-602-01, FA2-604-01, FA3-109-03, FA3-110-01, FA3-114-01	MIC-03-09- 00015
FA2-111-01	Ceiling	FA2-151-04, FA2-201-01 <u>, FA2-202-01</u> . FA2-203-01	MIC-03-09- 00015
	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, FA3-102-01, FA3-106-01	MIC-03-09-
FA2-112-01	Ceiling	FA2 152 04,FA2-204-01, FA2-205-01, FA2-206-01	1 00015
	Floor	FA2-109-01	\parallel
	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, FA3-106-01, FA3-117-01, FA3-119-01, FA3-129-01, FA3-132-01
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, FA2-123-01, FA2-214-07, 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, FA2-213-01, FA2-214-07, 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, FA3-115-01, FA3-117-01
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, FA2-121-01, 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 FA2-213-01, FA2-214-01, FA2-214-02
	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, <u>FA2-214-07</u> , 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, <u>FA2-213-01</u>
	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)

Table 3A-3		<u> </u>
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, FA3-105-02
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, FA2-202-01, FA2-203-01, FA2-207-01, FA2-209-03, FA3-105-02, FA3-130-01
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	MIC-03-09- 00015
	Floor	FA2-153-03, FA2-153-04, FA2-209-05, FA2-211-01 <u>FA2-213-01</u> , FA2-212-02, FA2-317-01	MIC-03-09- 00015
	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, FA2-213-01, FA2-317-01, FA2-322-01, FA4-101-10, FA4-101-13	MIC-03-09- 00015
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, FA3-117-01, FA3-119-01, FA3-129-01	MIC-03-09- 00015
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, FA3-105-02	MIC-03-09- 00015
FA2-154-06	Ceiling	FA2-408-01	1 00015
	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	

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, FA2-3203-01, FA2-307-02, FA2-308-03 FA2-302-01, FA2-320-01	
	Floor	FA2-102-01, <u>FA2-104-01</u> , <u>FA2-105-01</u> , <u>FA2-111-01</u>	
	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, <u>FA3-130-01,</u> FA6-101-04	- 11
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, <u>FA2-420-01</u>	
	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	FA2-303-01, FA2-304-02, FA2-307-042, FA2-308-03	
	Floor	FA2-105-01, FA2-201-01, FA2-202-01, FA2-111-01	
	Wall	FA2-151-04, FA2-201-01, FA2-202-01, FA2-204-01 , FA6-101-04	
FA2-204-01	Ceiling	FA2-308-03, FA2-312-01FA2-309-02, FA2-312-02, FA2-314-01	
	Floor	FA2-106-01, <u>FA2-112-01</u> , <u>FA2-205-01</u> , <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, FA2-312-0 2 1, FA2-313-01, FA2-314-01, FA2-321-01 , FA2-423-01	
	Floor	FA2-107-01, FA2-108-01, FA2-1 09 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 , <u>FA2-152-04</u>	_
FA2-206-01	Ceiling	FA2-204-01, FA2-205-01, FA2-308-03, FA2-312-02, FA2-314-01, FA2-321-01	-
	Floor	FA2-106-01, FA2-107-01, 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, FA2-200-05, FA2-210-21FA2-123-01, FA2-214-07, 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	- 11
FA2-209-04	Ceiling	FA2-154-05, FA2-209-06, FA2-210-13, FA2-210-22	
	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, FA2-213-01, FA2-316-01, FA2-323-01, FA2-323-02	- 11
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)

	Die 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, FA2-210-22, FA2-408-01, FA2-416-01, FA2-418-01, FA2-421-01	MIC-03-09 00015
FA2-209-07	Ceiling	FA2-210-13, FA2-506-01	00015
	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>	MIC-03-09
	Floor	FA2-113-04, FA2-121-02	00015
	Wall	FA2-122-01, FA2-209-03, FA2-209-04, FA2-209-06, FA2-210-13, FA2-210-22	MIC-03-09 00015
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, FA2-210-22, FA2-213-01, FA2-214-03, FA2-210-14, FA2-408-01, FA2-411-01, FA2-416-01, FA2-418-01	MIC-03-09 00015
	Wall		MIC-03-09 00015
FA2 210 14	Ceiling	FA2 210 13, FA2 210 18	MIC-03-09 00015
	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	1
	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	
FA2-210-22	Ceiling	FA2-210-13	
	Floor	FA2-209-04, FA2-210-10	
	Wall	FA2-209-06, FA2-210-10, FA2-210-13	
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	1

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
FA2-213-01	Ceiling	FA2-153-05, FA2-210-13, FA2-418-01
	Floor	FA2-127-02, FA2-127-07, FA2-128-02, FA2-152-03
	<u>Wall</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
FA2-214-01	Ceiling	FA2-214-03
	Floor	FA2-127-02
	Wall	FA2-213-01, FA2-214-02, FA2-210-13
FA2-214-02	Ceiling	FA2-214-03, FA2-418-01
	Floor	FA2-127-02
	<u>Wall</u>	FA2-213-01, FA2-214-01, FA2-210-13
FA2-214-03	Ceiling	FA2-210-13, FA2-214-06
	Floor	FA2-214-01, FA2-214-02
	<u>Wall</u>	FA2-210-13, FA2-418-01
FA2-214-04	Ceiling	FA2-214-07
	<u>Floor</u>	FA2-411-01
	<u>Wall</u>	FA1-101-25, FA2-214-05, FA2-214-07, FA2-506-01, FA2-511-01
FA2-214-05	Ceiling	<u>FA2-214-07</u>
	<u>Floor</u>	FA2-411-01, FA2-417-01
	<u>Wall</u>	FA2-214-04, FA2-214-07, FA2-511-01
FA2-214-06	Ceiling	Roof
	<u>Floor</u>	FA2-214-03, FA2-418-01
	<u>Wall</u>	FA2-210-13, FA2-214-07

Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 16 of 36)

Fire Zone	Interface	Adjacent Fire Zones
FA2-214-07	Ceiling	Roof
	<u>Floor</u>	FA2-127-08, FA2-214-04, FA2-214-05, 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, FA2-210-19, 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
FA2-302-01	Ceiling	FA2-401-01, FA2-402-01
	Floor	FA2-201-01, FA2-202-01, FA2-304-01
	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, FA2-203-01, FA2-307-01, FA2-320-01
	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	FA2-30 7 2-01, 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 FA2-320-01
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, FA2-203-01
	Wall	FA2 303 01, FA2-304-02, FA2-308-03 , FA2 320 01
FA2-308-01	Ceiling	FA2-3 <mark>12</mark> 09-01, 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,- <u>FA6-101-15</u>

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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	FA2-30 7 4-01, FA2-405-01, FA2-412-01	MIC-03-09- 00015
	Floor	FA2-308-03	00015
	Wall	<u>FA2-303-01</u> , FA2-304-01, FA2-307-01, FA2-308-01, FA2-320-01, <u>FA6-101-15</u>	MIC-03-09- 00015
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	MIC-03-09- 00015
	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, FA6-101-15FA2-314-01	
FA2-309-01	Ceiling	FA2-31 <u>2</u> 3-01, FA2-404-01	
	Floor	FA2-308-01, FA2-309-02	
	Wall	FA2-308-01, FA2-312-01, FA2-313-01, FA6-101-15 FA2-321-01	
FA2-309-02	Ceiling	FA2-309-01	
	Floor	FA2-204-01, FA2-205-01	MIC-03-09- 00015
	Wall	FA2-308-03, FA2-312-01, FA2-312-02 , FA2-313-01, FA6-101-15	
FA2-312-01	Ceiling	FA2-313-01, FA2-314-01, FA2-403-01, FA2-404-01	
	Floor	FA2-204 <u>5</u> -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	MIC-03-09- 00015
	Wall	FA2-308-03, FA2-309-02, FA2-314-01 , FA2-321-01	00013
FA2-313-01	Ceiling	FA2-403-01, FA2-404-01	
	Floor	FA2-205-01, FA2-309-01	
	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, FA2-423-01	
	Floor	FA2-204-01, FA2-205-01, FA2-206-01FA2-312-01, FA2-321-01	
	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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Fire Zone/Fire Area Interfaces (Sheet 18 of 36) Table 9A-3

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, FA3-105-02, FA3-130-01	MIC-03-09- 00015
FA2-317-01	Ceiling	FA2-153-05, FA2-422-01	00013
	Floor	FA2-152-03, FA2-152-04	
	Wall	FA2-152-05, FA2-153-05, FA2-208-01, FA2-209-05 FA2-213-01, FA2-318-01, FA2-321-01, FA4-101-10	MIC-03-09- 00015
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	FA2-303-01, FA2-420-01, FA2-424-01	MIC-03-09- 00015
	Floor	FA2-151-04, FA2-201-01, FA2-202-01	00013
	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, <u>FA3-103-03</u> , FA3-104-03, <u>FA3-130-01</u>	MIC-03-09- 00015
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 FA2-309-01, FA2-313-01, FA2-314-01, FA2-317-01, FA2-318-01, FA2-320-01, FA3-114-01, FA4-101-10	MIC-03-09- 00015
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>	MIC-03-09- 00015
FA2-323-01	Ceiling	FA2-209-07] 00015
	Floor	FA2-154-01, FA2-212-02	
	Wall	FA2-154-05, FA2-154-06, FA2-209-04, FA2-323-02	

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, FA2-50 7 1-02	
	Floor	FA2-302-01, FA2-303-01, FA2-307-01	
	Wall	FA2-402-01, FA2-412-01, FA2-414-01, FA2-42 <mark>0</mark> 4-01	
FA2-402-01	Ceiling	FA2-504-01, FA2-507-01, FA2-50 <mark>4</mark> 7-02	
	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	FA2-5012-01 , FA2-503-01, FA2-508-01, FA2-508-02	
	Floor	FA2-312-01, <u>FA2-313-01</u> , <u>FA2-314-01</u>	
	Wall	FA2-404-01, FA2-413-01, FA2-415-01, FA2-419-01, FA2-423-01	
FA2-404-01	Ceiling	FA2-54 <u>0</u> 2-01 <u>, FA2-503-01</u> , FA2-508-01, FA2-508-02	
	Floor	FA2-309-01, FA2-312-01, FA2-313-01	Ī
	Wall	FA2-403-01, FA2-413-01, FA2-415-01, FA2-423-01, FA6-101-15 FA2-419-01	
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	Ī
	Wall	FA2-410-01, FA2-419-01, FA2-422-01 , FA2-423-01	Ī
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	T

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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 <u>FA2-214-07</u> , FA2-510-01, FA2-510-02	MIC-03-09- 00015
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	MIC-03-09- 00015
	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	MIC-03-09- 00015
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	MIC-03-09- 00015
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	MIC-03-09- 00015
	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	MIC-03-09- 00015

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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 <u>, FA2-153-05</u>
	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 <u>, FA2-213-01</u>
	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 <u>. FA2-510-02</u>
	Floor	FA2 152 06, FA2-321-01
	Wall	FA1-101-16, FA2-403-01FA2-110-01, 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	MIC-03-09 00015
	Floor	FA2-153-05, FA2-317-01	00015
	Wall	FA2-208-01, FA2-407-03, FA2-410-01, FA2-418-01, FA2-4 23 19-01, FA4-101-18	MIC-03-09 00015
FA2-423-01	Ceiling	FA2-505-01, FA2-509-01 , FA2-510-02	MIC-03-09 00015
	Floor	FA2-108-01, FA2-205-01 FA2-314-01, FA2-321-01	
	Wall	FA2-140 <u>8</u> -01, FA2-403-01, FA2-404-01, FA2-407-03, FA2-419- 01 , FA2-422-01, FA4-101-18, FA6-101-15	
FA2-424-01	Ceiling	FA2-507-01	
	Floor	FA2-303-01, FA2-320-01	
	Wall	FA2-101-01, FA2-102-01, FA2-401-01, FA2-420-01	
FA2-501-02	Ceiling	Roof	
	Floor	FA2-40 <mark>2</mark> 1-01	MIC-03-09 00015
	Wall	FA2-414-01, FA2-507-01, FA2-507-02, FA2-601-01, FA2-603-01	00013
FA2-502-01	Ceiling	Roof	
	Floor	FA2-40 <mark>3</mark> 4-01	MIC-03-09 00015
	Wall	FA2-503-01, FA2-508-01, FA2-508-02, FA2-509-01	00013
FA2-503-01	Ceiling	FA2-602-01, Roof	
	Floor	FA2-40 <mark>3</mark> 4-01	MIC-03-09 00015
	Wall	FA2-502-01, FA2-508-02, FA2-509-01	00013
FA2-504-01	Ceiling	FA2 414 01, FA2-601-01, FA2-601-02	MIC-03-09
	Floor	FA2-40 <mark>4</mark> 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, FA2-210-21FA2-214-04, FA2-214-07	MIC-03-09 00015

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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	<u>FA2-102-01</u> , FA2-40 <mark>4</mark> 2-01, FA2-414-01, FA2-420-01, <u>FA2-424-01</u>	MIC-03-09- 00015
	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 <mark>4</mark> 2-01	MIC-03-09- 00015
	Wall	FA2-414-01, FA2-501-02, FA2-504-01, FA2-507-01	00013
FA2-508-01	Ceiling	Roof	
	Floor	FA2-40 <mark>3</mark> 4-01	MIC-03-09- 00015
	Wall	FA2-415-01, FA2-502-01, FA2-508-02, FA2-509-01, FA2-512-01	00015
FA2-508-02	Ceiling	FA2-604-01, Roof	
	Floor	FA2-40 <mark>3</mark> 4-01	MIC-03-09- 00015
	Wall	FA2-502-01, FA2-503-01, FA2-508-01, FA2-509-01, FA2-512-01	00013
FA2-509-01	Ceiling	FA2-415-01, FA2-602-01, FA2-604-01, Roof	
	Floor	<u>FA2-108-01</u> , FA2-415-01, FA2-419-01, FA2-423-01	MIC-03-09- 00015
	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	00013
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, <u>FA2-419-01</u> , FA2-422-01, <u>FA2-423-01</u>	MIC-03-09- 00015
	Wall	FA2 210 21 <u>FA2-214-07</u> , FA2-410-02, FA2-509-01, FA2-510-01, FA4-101-23	100015
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 21 FA2-214-04, FA2-214-05, FA2-214-07	MIC-03-09- 00015

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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 <u>3</u> -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, FA3-103-02, FA3-104-02, FA3-106-01, FA3-128-01, FA7-101-01
FA3-102-01	Ceiling	FA3-103-03, FA3-104-03
	Wall	FA2-101-01, FA2-111-01, FA3-101-01, FA3-103-01, FA3-103-02, FA3-104-01, FA3-106-01, FA3-128-01FA7-102-01
FA3-103-01	Ceiling	FA3-103-0 <mark>34, FA3-104-03, </mark> FA3-118-01
	Wall	FA3 102 01, FA3 103 02, FA3-104-01, FA3-105-03, FA3-106-01, FA3-118-01, FA3-127-01, FA3-128-01

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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 <u>3</u> -03
	Floor	FA3-104 <u>1</u> -01
	Wall	FA3-10 <u>21</u> -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, FA3-103-042, FA3-106-01 FA3-104-02, FA3-1428-01
	Wall	FA2 101 01, FA2 201 01, FA2 320 01, FA3-104-03, FA3 105-02FA3-130-01
FA3-103-04	Ceiling	FA3-104-03, Roof
	Floor	FA3-103-01, FA3-104-01, FA3-118-01, FA3-127-01
	Wall	FA3-104-04, FA3-105-02, FA3-130-01
FA3-104-01	Ceiling	FA3-103-0 2 4, FA3-104-0 2 4, FA3-11 9 8-01, FA3-129-01
	Wall	FA3-102-01, FA3-103-01, FA3-106-01, FA3-118-01, FA3-128-01, FA3-129-01
FA3-104-02	Ceiling	<u>FA3-103-03</u> , FA3-104-03
	Floor	FA3-104 <u>1</u> -01
	Wall	FA3-101-01, 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, <u>FA3-105-02</u> , <u>FA6-101-04</u> , <u>FA6-101-15</u> <u>FA3-130-01</u>
FA3-104-04	Ceiling	FA3-104-03, Roof
	Floor	FA3-104-01, FA3-129-01
	Wall	FA3-103-04, FA3-104-03, FA3-105-02, FA3-130-01
FA3-105-01	Ceiling	FA3-105-02
	Floor	FA3-1 0 16-01 , FA3-115-01
	Wall	FA3 104 02, FA3-105-03, FA3-1 06 25-01, FA3-1 17 29-01 , 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, FA3-125-01, FA3-129-01</u>	MIC-03-09- 00015
	Wall	FA3 103 03, FA3 104 03, FA3 106 01, FA3 125 01 FA2-151-03, FA2-151-04, FA2-154-05, FA2-316-01, FA3-103-04, FA3-104-04, FA3-130-01	
FA3-105-03	Ceiling	FA3-105-02	
	Floor	FA3-11 5 6-01 <u>, FA3-133-01</u>	MIC-03-09- 00015
	Wall	<u>FA3-103-01</u> , FA3-105-01, FA3-1178-01, FA7-403-01 FA3-125-01, <u>FA3-127-01</u> , FA3-128-01	00013
FA3-106-01	Ceiling	FA3 103 03, FA3 105 01, FA3 105 02, FA3-1127-01, FA3-128-01, FA3-129-01, FA3-130-01	
	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, <u>FA3-105-01</u> , FA3-105-02, FA3-115-01, FA3-116-01, <u>FA3-117-01</u> , <u>FA3-118-01</u> , <u>FA3-119-01</u> , <u>FA3-125-01</u> FA3-127-01, <u>FA3-128-01</u> , FA3-129-01, FA3-132-01, FA3-133-01	
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, FA7-104-01	MIC-03-09- 00015
FA3-109-01	Ceiling	FA3-109-03, FA3-111-03, FA3-122-01	00015
	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	MIC-03-09- 00015
FA3-109-03	Ceiling	FA3-114-01, Roof	00013
	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	MIC-03-09- 00015
	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	MIC-03-09- 00015
FA3-110-01	Ceiling	FA3-109-03, FA3-111-03	00013
	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>	MIC-03-09- 00015

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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>	MIC-03-09-
	Wall	FA3-109-02, FA3-113-01, FA3-124-01, FA7-405-01 <u>FA3-131-01,</u> <u>FA7-104-01</u>	00015
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	MIC-03-09- 00015
FA3-112-01	Ceiling	FA3-109-03, FA3-113-01 FA3-111-02, FA3-113-02, FA3-12 3 2-01, FA3-124-01, FA3-131-01	00013
	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, FA3-131-01, FA3-134-01, FA3-135-01, FA4-101-01, FA4-101-22, FA7-104-01	MIC-03-09- 00015
FA3-113-01	Ceiling	FA3-113-02	
	Floor	FA3 112 01, FA3-121-01 <u>, FA3-135-01</u>	MIC-03-09- 00015
	Wall	FA3 111 02, FA3 112 01, FA3-113-03, FA3-123-01, FA3 124 01 FA3-131-01, FA7-104-01	00013
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, FA3-131-01	MIC-03-09- 00015
	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	00013
FA3-113-03	Ceiling	FA3-113-02	
	Floor	FA3-121-01	
	Wall	FA3-113-01, FA3-123-01 , FA7-406-01	MIC-03-09- 00015
FA3-114-01	Ceiling	Roof	00013
	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	MIC-03-09-
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	FA3-105-0 <mark>2</mark> 1, FA3-106-01 FA3-105-03, FA3-125-01	MIC-03-09-
	Wall	FA3 106 01, FA3-115-01 <u>, FA3-133-01</u>	00015
FA3-117-01	Ceiling	FA3-105-02	
	Floor	FA3-106-01, FA3-115-01 <u>FA3-132-01</u>	MIC-03-09- 00015
	Wall	FA3-105-01, FA3-105-03, FA3-106-01 <u>FA2-114-03, FA2-121-01,</u> FA3-118-01, FA3-119-01, FA3-12 <u>5</u> <u>9</u> -01 <u>, FA2-154-02</u>	00015
FA3-118-01	Ceiling	FA3-103-0 <mark>34, FA3-104-03</mark>	
	Floor	FA3-103-01 <u>. FA3-104-01</u>	
	Wall	FA3-103-01, FA3-10 6 4-01, <u>FA3-105-03</u> , FA3-117-01 , <u>FA3-127-01</u> , FA3-1 1 29-01	
FA3-119-01	Ceiling	FA3 104 03FA3-105-02	
	Floor	FA3 104 01FA3-132-01	
	Wall	FA3 103 02, FA3 104 02, FA3 105 01, FA3 106 01 FA2-114-03, FA2-154-02, FA3-117-01, FA3 118 01 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 <u>FA3-134-01</u> , FA4-101-22	MIC-03-09- 00015
FA3-121-01	Ceiling	FA3-113-01, FA3-113-03, FA3-123-01	00015
	Wall	FA3 112 01, FA3-120-01 <u>, FA3-135-01</u> , FA7-104-01	MIC-03-09- 00015
FA3-122-01	Ceiling	FA3-109-03, FA3-111-03	00015
	Floor	FA3-109-01 <u>, FA3-112-01</u>	MIC-03-09- 00015
	Wall	FA3-109-01, FA3-112-01, FA3-123-01, FA3-124-01, <u>FA3-131-01</u>	00013
FA3-123-01	Ceiling	FA3-113-02	
	Floor	FA3 112 01, FA3-121-01 <u>, FA3-135-01</u>	MIC-03-09- 00015
	Wall	FA3 112 01, FA3-113-01, FA3-113-03, FA3 122 01, FA3 124 01, FA3-126-01, <u>FA3-131-01</u>	00013
FA3-124-01	Ceiling	FA3-111-03	
	Floor	FA3-111-01 <u>. FA3-112-01</u>	MIC-03-09- 00015
	Wall	FA3-109-02, FA3-111-02, FA3-112-01, FA3-113-01, FA3-122-01, FA3-1 2 3 <u>1</u> -01	00013
FA3-125-01	Ceiling	FA3-105-02	
	Floor	FA3-116-01 <u>, FA3-133-01</u>	MIC-03-09- 00015
	Wall	FA3-105-021, FA3-106-01FA3-105-03, FA3-1127-01, FA3-129- 01	00015

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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
FA3-127-01	Ceiling	FA3-103-04
	Floor	FA3-106-01
	Wall	FA3-103-01, FA3-105-03, FA3-106-01, FA3-118-01, FA3-125-01, FA3-129-01, FA3-133-01
FA3-128-01	Ceiling	FA3-103-03, FA3-130-01
	Floor	FA3-106-01
	<u>Wall</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
FA3-129-01	Ceiling	FA3-104-04, FA3-105-02, FA3-130-01
	Floor	FA3-104-01, FA3-106-01, FA3-115-01, FA3-132-01
	<u>Wall</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
FA3-130-01	Ceiling	FA3-104-03, Roof
	Floor	FA3-106-01, FA3-128-01, FA3-129-01
	<u>Wall</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
FA3-131-01	Ceiling	FA3-113-02
	Floor	FA3-135-01
	<u>Wall</u>	FA3-112-01, FA3-122-01, FA3-124-01, FA3-111-02, FA3-113-01, FA3-123-01, FA7-104-01
FA3-132-01	Ceiling	FA3-117-01, FA3-119-01, FA3-129-01
	Wall	FA2-114-03, FA3-106-01, FA3-115-01, FA3-133-01
FA3-133-01	Ceiling	FA3-105-03, FA3-125-01
	Wall	FA3-106-01, FA3-116-01, FA3-127-01, FA3-132-01
FA3-134-01	Ceiling	FA3-112-01, FA3-126-01
	Wall	FA3-112-01, FA3-120-01, FA3-135-01, FA4-101-01, FA4-101-22
FA3-135-01	Ceiling	FA3-113-01, FA3-123-01, FA3-131-01
	Wall	FA3-112-01, FA3-121-01, FA3-134-01, FA7-104-01

Fire Zone/Fire Area Interfaces (Sheet 30 of 36) Table 9A-3

Fire Zone	Interface	Adjacent Fire Zones	
FA4-101-01	Ceiling	FA4-101-04, FA4-101-2 <mark>4</mark> 0	MIC-03-09- 00015
	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	MIC-03-09- 00015 DCD_11.03
FA4-101-02	Ceiling	Roof	19
	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	MIC-03-09- 00015
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 <u>, FA4-101-25</u>	DCD_11.03
	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	19
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	<u>FA3-109-03</u> , FA3-113-02, FA4-101-10, <u>FA5-101-01</u>	MIC-03-09- 00015

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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, FA2-209-05FA2-213-01, 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	MIC-03-09- 00015
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	MIC-03-09- 00015
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 <u>FA2-213-01</u> , FA4-101-02, FA4-101-04, FA4-101-13, FA4-101-16, FA4-101-17	MIC-03-09- 00015
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 <u>FA2-213-01</u> , FA4-101-04, FA4-101-15	MIC-03-09- 00015

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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, FA4-101-19	MIC-03-09- 00015
	Wall	FA2-418-01, <u>FA2-419-01</u> FA2-422-01, <u>FA2-423-01</u> FA4-101-01, FA4-101-02, FA4-101-10, FA4-101-19, FA4-101-20, FA4-101-21	100013
FA4-101-19	Ceiling	RoofFA4-101-18	MIC-03-09- 00015
	Floor	FA4-101-09, FA4-101-10	00013
	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	100015
FA4-101-21	Ceiling	RoofFA4-101-20	MIC-03-09- 00015
	Floor	FA4 101 01, FA4-101-16	100013
	Wall	<u>FA4-101-01</u> , FA4-101-18, FA4-101-20	\parallel
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	FA2-210-21FA2-214-07, FA2-509-01, FA2-510-02, FA4-101-10, FA4-101-24	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
FA4-101-25	Ceiling	FA4-101-04	DCD_11.03-
	Wall	FA4-101-01	19
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

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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	MIC-03-09- 00015
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	MIC-03-09- 00015
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	MIC-03-09- 00015
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	MIC-03-09- 00015
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	MIC-03-09- 00015

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Table 9A-3 Fire Zone/Fire Area Interfaces (Sheet 34 of 36)

Fire Zone	Interface	Adjacent Fire Zones	Ī
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	

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, <u>FA7-104-01</u> , <u>FA7-401-01</u> , <u>FA7-406-01</u> , <u>FA7-405-01</u> , <u>FA7-406-01</u>
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>FA3-135-01</u> , <u>FA7-101-01</u> , <u>FA7-102-01</u> , <u>FA7-103-01</u>

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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]

FIRE Zone

NUMBER (*1)

FIRE AREA NUMBER

NUMBER (*2)

FIRE Zone NUMBER

(*1)

FIRE AREA NUMBER is shown as follows.

 $FA \bigcirc -\blacksquare \times \times$

O: 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 $-\times\times$

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-1 Fire Zones and Fire Areas R/B EL -26'-4" (B1F)

Figure 9A-2 Fire Zones and Fire Areas R/B EL -8'-7" (B1MF)

Figure 9A-3 Fire Zones and Fire Areas R/B EL 3'-7" (1F)

Figure 9A-4 Fire Zones and Fire Areas R/B EL 13'-6" (1MF)

Figure 9A-5 Fire Zones and Fire Areas R/B EL 25'-3" (2F)

Figure 9A-6 Fire Zones and Fire Areas R/B EL 35'-2" (2MF)

Figure 9A-7 Fire Zones and Fire Areas R/B EL 50'-2" (3F)

Figure 9A-8 Fire Zones and Fire Areas R/B EL 76'-5" (4F)

Security-Related Information – Withheld Under 10 CFR 2.390

Figure 9A-9 Fire Zones and Fire Areas R/B EL 101'-0" (Roof)

Figure 9A-11 Fire Zones and Fire Areas PS/B EL -26'-4", EL -14'-2" (B1F, B1MF)

Figure 9A-12 Fire Zones and Fire Areas PS/B EL 3'-7", EL 24'-2", EL 39'-6" (1F, 1MF, Roof)

Figure 9A-16 Fire Zones and Fire Areas A/B EL 50'-2" (3F)

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Figure 9A-18 Fire Zones and Fire Areas AC/B EL -26'-4", EL -8'-0", EL 3'-7" (B1F, B1MF, 1F)

Figure 9A-19 Fire Zones and Fire Areas AC/B EL 17'-9", EL 30'-2", EL 48'-2" (1MF, 2F, Roof)