

## INSTRUMENTATION

### FIRE DETECTION INSTRUMENTATION

#### LIMITING CONDITION FOR OPERATION

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3.3.3.7 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-11 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the fire detection instrument is required to be OPERABLE.

#### ACTION:

With the number of OPERABLE fire detection instrument(s) less than the minimum number OPERABLE requirement of Table 3.3-11:

- a. Within 1 hour establish a fire watch patrol to inspect the zone(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect the containment at least once per 8 hours or monitor the containment air temperature at least once per 8 hours at the locations listed in Specification 4.6.1.5; or unless the instrument(s) is located in fire detection zones equipped with automatic wet pipe sprinkler systems alarmed and supervised to the Control Room, then within one hour and at least per 24 hours thereafter, inspect the zone(s) with inoperable instruments and verify that the automatic sprinkler system, including the water flow alarm and supervisory system, is operable by channel functional test.
- b. Restore the inoperable instrument(s) to OPERABLE status within 14 days, or in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the instrument(s) to OPERABLE status.
- c. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.3.3.7.1 At least once per 6 months, at least 25% of the above required fire detection instruments which are accessible during plant operation shall be demonstrated OPERABLE by performance of a CHANNEL FUNCTIONAL TEST. Detectors selected for testing shall be selected on a rotating basis such that all detectors will be tested over a two year period. If in any detection zone there are less than four detectors, at least one different detector in that zone shall be tested every six months. For each detector found inoperable during functional testing, at least an additional 10% of all detectors or 10 detectors, whichever is less shall also be tested. Fire detectors which are inaccessible during plant operation shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed during the previous six months.

## INSTRUMENTATION

### FIRE DETECTION INSTRUMENTATION

#### SURVEILLANCE REQUIREMENTS

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4.3.3.7.2 The NFPA Standard 72D supervised circuits supervision associated with the detector alarms of each of the above required fire detection instruments shall be demonstrated OPERABLE at least once per six months.

4.3.3.7.3 The non-supervised circuits, associated with detector alarms, between the instrument and the control room shall be demonstrated OPERABLE at least once per 31 days.

TABLE 3.3-11  
FIRE DETECTION INSTRUMENT  
Unit 1

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>		
	<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
Spent Fuel Pool Heat Exchanger Room 320			3
Main Control Room			6
Control Room Vent Duct "A"			2
Main Plant Exhaust Equip Room 524			8
Control Room HVAC Equip Room 512			4
Passage and Filter Room 323			3
Unit 1 Cont SW Elec Pen Area*	4		
Unit 1 Cont NE Elec Pen Area*	4		
Unit 1 Cont East RCPS*	16		
Unit 1 Cont West RCPS*	16		
Control Room Vent Duct "B"			1
West Passage 319 Elev 27'-0"			6
E/W Corridor 104 Elev (-) 10'-0"			5
<del>Intake</del> Intake Structure			48
Unit 1 Waste Proc Control Room 111			1
Coolant Waste Rec/Mon TK Pp Room 110			2
11 Diesel Generator**	2		
12 Diesel Generator**	2		
Unit 1 Cable Tunnel Elev 33'-0"			4

\*Detector instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

\*\*Detectors which automatically actuate fire suppression systems.

POOR ORIGINAL

TABLE 3.3-11  
FIRE DETECTION INSTRUMENT  
Unit 1  
 (continued)

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE</u>		
	<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
Cable Chase 1A			1
Cable Chase 1B			1
Unit 1 C.S.R. & Cable Chase 1C**	2		10
Unit 1 Personnel Access Area Room 525			3
Unit 1 Switchgear Elev 27'-0" Room 317**			6
Unit 1 Switchgear Elev 45'-0" Room 430**			8
Unit 1 Elec Equip Room 529			3
<del>Unit 1 Elec Equip Room 529</del>			
Unit 1 East Elec Pen Room 429			3
Unit 1 West Elec Pen Room 423			3
Unit 1 Refueling Water TK <sup>PUMP</sup> Room 439			2
Unit 1 East Piping Pen Rooms 227 and 316		3	5
Unit 1 Purge Air Supply Room 313			2
Unit 1 West Piping Pen Rooms 221 and 326		2	3
Unit 1 Letdown Heat Exchanger Room 324			1
Unit 1 Volume Control TK Room 213			1
Unit 1 ECCS <sup>PUMP</sup> Rooms 118 and 122			7
Unit 1 Coolant Waste Rec TK Room 114		4	
Unit 1 ECCS <sup>PUMP</sup> Rooms 119 and 122			7
Unit 1 El 27'-0" Swgr Room Vent Duct	1		
Unit 1 El 45'-0" Swgr Room Vent Duct	1		

\*Detection instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

\*\*Detectors which automatically actuate fire suppression systems.

TABLE 3.3-11  
FIRE DETECTION INSTRUMENTS  
Unit 2

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENTS OPERABLE*</u>		
	<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
<del>Unit 2 East Elec Pen Room 409</del>			<del>3</del>
Unit 2 East Elec Pen Room 409			3
Unit 2 West Elec Pen Room 414			3
Unit 2 Switchgear El 27'-0" Room 311**			6
Unit 2 Switchgear El 45'-0" Room 407**			8
Unit 2 Elec Equip Room 532			3
Unit 2 Cont SE Elec Pen Area*	4		
Unit 2 Cont NW Elec Pen Area*	4		
Unit 2 Cont East RCPS*	16		
Unit 2 Cont West RCPS*	16		
Unit 2 Main Plant Exh Equip Room 526			8
Unit 2 Personnel Access Area Room 527			3
Cable Tunnel U-2 Elev 83'-0"			4
Cable Chase 2A			1
Cable Chase 2B			1
Unit 2 C.S.R. & Cable Chase 2C **	2		10
Unit 2 Letdown Heat Exchanger Room 322			1
Unit 2 Volume Control Tank Room 214			1
Unit 2 Cool Waste Rec TK Room 107		4	

\*Detection instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

\*\*Detectors which automatically actuate fire suppression systems.

TABLE 3.3-11  
FIRE DETECTION INSTRUMENTS  
Unit 2  
 (continued)

<u>INSTRUMENT LOCATION</u>	<u>MINIMUM INSTRUMENT OPERABLE*</u>		
	<u>HEAT</u>	<u>FLAME</u>	<u>SMOKE</u>
Unit 2 ECCS Pump Rooms 101 and 120			7
Unit 2 Pump Room 108 Elev (-) 10'-0"			1
Unit 2 Intake Structure			
Unit 2 Elev 27'-0" SWGR Room Vent Duct	1		
Unit 2 Elev 45'-0" SWGR Room Vent Duct	1		
Unit 2 ECCS Pp Rooms 102 and 120			7
21 Diesel Generator	2		
Unit 2 Refueling Water TK Pp Room 440			2
Unit 2 East Pp Pen Rooms 206 and 310		3	5
Unit 2 Purge Air Supply Room 312			2
Unit 2 West Piping Pen Rooms 211 and 321		2	3

\*Detection instruments located within the containment are not required to be OPERABLE during the performance of Type A Containment Leakage Rate Tests.

\*\*Detectors which automatically actuate fire suppression systems.



## PLANT SYSTEMS

### 3/4.7.11 FIRE SUPPRESSION SYSTEMS

#### FIRE SUPPRESSION WATER SYSTEM

#### LIMITING CONDITION FOR OPERATION

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3.7.11.1 The fire suppression water system shall be OPERABLE with:

- a. (Two) fire suppression pumps, each with a capacity of (2500) gpm, with their discharge aligned to the fire suppression header,
- b. Separate water supplies, each with a minimum contained volume of 300,000 gallons, and
- c. An OPERABLE flow path capable of taking suction from the pretreated water storage tank No. 11 and the pretreated water storage tank No. 12 and transferring the water through distribution piping with OPERABLE sectionalizing control or isolation valves to the yard hydrant curb valves, the last valve ahead of the water flow alarm device on each sprinkler or hose stand-pipe, and the last valve ahead of the deluge valve on each deluge or spray system required to be OPERABLE per Specifications 3.7.11.2, 3.7.11.4 and 3.7.11.5.

APPLICABILITY: At all times.

#### ACTION:

- a. With one pump and/or one water supply inoperable, restore the inoperable equipment to OPERABLE status within 7 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the plans and procedures to be used to restore the inoperable equipment to OPERABLE status or to provide an alternate backup pump or supply. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.
- b. With the fire suppression water system otherwise inoperable:
  1. Establish a backup fire suppression water system with 24 hours, and
  2. In lieu of any other report required by Specification 6.9.1, submit a Special Report in accordance with Specification 6.9.2:
    - a) By telephone within 24 hours,
    - b) Confirmed by telegraph, mailgram or facsimile transmission no later than the first working day following the event, and

## PLANT SYSTEMS

### ACTION: (Continued)

- c) In writing within 14 days following the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

## SURVEILLANCE REQUIREMENTS

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### 4.7.11.1.1 The fire suppression water system shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying the contained water supply volume.
- b. At least once per 31 days on a STAGGERED TEST BASIS by starting each electric motor driven pump and operating it for at least 15 minutes on recirculation flow.
- c. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
- d. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
- e. At least once per 15 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:
  1. Verifying that each automatic valve in the flow path actuates to its correct position,
  2. Verifying that each pump develops at least (2500) gpm at a system discharge pressure of 125 psig.
  3. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and
  4. Verifying that each fire suppression pump starts (sequentially) to maintain the fire suppression water system pressure greater than or equal to 60 psig.

- f. At least once per 3 years by performing a flow test of the system in accordance ~~with the following requirements:~~

**SECTION 11, CHAPTER 5, OF THE FIRE PROTECTION HANDBOOK, 14<sup>TH</sup> EDITION, PUBLISHED BY NFPA.**



## PLANT SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

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4.7.11.1.2 The fire pump diesel engine shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying:
  1. The fuel storage tank contains at least 174 gallons of fuel, and
  2. The diesel starts from ambient conditions and operates for at least 30 minutes on recirculation flow.
- b. At least once per 92 days by verifying that a sample of diesel fuel from the fuel storage tank, obtained in accordance with ASTM-D270-66, is within the acceptable limits specified in Table 1 of ASTM D975-74 when checked for viscosity, water and sediment.
- c. At least once per 18 months, during shutdown, by subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for the class of service.

4.7.11.1.3 The fire pump diesel starting 24-volt battery bank and charger shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying that:
  1. The electrolyte level of each battery is above the plates, and
  2. The overall battery voltage is greater than or equal to 24 volts.
- b. At least once per 92 days by verifying that the specific gravity is appropriate for continued service of the battery.
- c. At least once per 18 months by verifying that:
  1. The batteries, cell plates and battery racks shown no visual indication of physical damage or abnormal deterioration, and
  2. The battery-to-battery and terminal connections are clean, tight, free of corrosion and coated with anti-corrosion material.

## PLANT SYSTEMS

### SPRAY AND/OR SPRINKLER SYSTEMS

#### LIMITING CONDITION FOR OPERATION

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3.7.11.2 The following spray and/or sprinkler systems shown in Table 3.7-5 shall be OPERABLE:

APPLICABILITY: Whenever equipment protected by the spray/sprinkler system is required to be OPERABLE.

ACTION:

- SAFE SHUTDOWN**
- a. With one or more of the above required spray and/or sprinkler systems inoperable, within one hour establish a continuous fire watch with backup fire suppression equipment for those areas in which redundant systems or components could be damaged; for other areas, establish a hourly fire watch patrol. Restore the system to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
  - b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.7.11.2 Each of the above required spray and/or sprinkler systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
- b. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
- c. At least once per 18 months:

PLANT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

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1. By performing a system functional test which includes simulated automatic actuation of the system, and:
  - a) Verifying that the automatic valves in the flow path actuate to their correct positions on a simulated test signal, and
  - b) Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel.
2. By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity, and
3. By a visual inspection of each nozzle(s) ~~to verify~~ *THE AREA IN THE VICINITY OF* the spray pattern ~~is~~ *WILL BE* not obstructed.

TABLE 3.7-5  
FIRE PROTECTION SPRINKLERS  
Unit 1

<u>SPRINKLER LOCATION</u>	<u>CONTROL VALVE ELEVATION</u>
11 Diesel Generator	45'-0"
12 Diesel Generator	45'-0"
Unit 1 East Pipe Pen Room 227/316 *	5'-0"
Unit 1 Aux Feed Pump Room 603 *	12'-0"
Unit 1 East Piping Area Room 428 *	45'-0"
Unit 1 East Electrical Penetration Room 429 *	45'-0"
Unit 1 West Electrical Penetration Room 423 *	45'-0"
Unit 1 Main Steam Piping Room 315 *	45'-0"
Unit 1 Component Cooling Pump Room 228 *	5'-0"
Unit 1 East Piping Area 224 *	5'-0"
Unit 1 Radiation Exhaust Vent Equipment Room 225 *	5'-0"
Unit 1 Service Water Pump Room 226 *	5'-0"
Unit 1 Boric Acid Tank and Pump Room 217 *	5'-0"
Unit 1 Reactor Coolant Makeup Pump Room 216 *	5'-0"
Unit 1 Charging Pump Room 115 *	(-) 10'-0"
Unit 1 Misc Waste Mon Room 113 *	(-) 10'-0"
Cask & Eqpt Loading Area Rooms 419, 420, 425 & 426 *	45'-0"
Solid Waste Processing *	45'-0"
Corridors 200, 202, 212 and 219 *	45'-0"
Corridors 100, 103 and 116 *	(-) 10'-0"
Cable Chase 1A *	45'-0"

\*Sprinklers required to ensure the OPERABILITY of redundant safe ~~equipment~~. SHUTDOWN

TABLE 3.7-5

FIRE PROTECTION SPRINKLERSUnit 1SPRINKLER LOCATION

Cable Chase 1B\*

Unit 1 ECCS Pump Room 119\*

Hot Instrument Shop Room 222\*

Hot Machine Shop Room 223\*

CONTROL VALVESELEVATION

45'-0"

(-) 15'-0"

5'-0"

5'-0"

\*Sprinklers required to ensure the OPERABILITY of redundant safe ~~equipment~~ SHUT DOWN equipment.

TABLE 3.7-5

FIRE PROTECTION SPRINKLERS  
Unit 2

<u>SPRINKLER LOCATION</u>	<u>CONTROL VALVE</u> <u>ELEVATION</u>
Unit 2 Aux Feed Pump Room 603*	12'-0"
Unit 2 East Piping Area Room 403*	45'-0"
Unit 2 East Elec Pen Room 409*	45'-0"
Unit 2 West Elec Pen Room 414*	45'-0"
Cable Chase 2A*	45'-0"
Cable Chase 2B*	45'-0"
Unit 2 Main Steam Piping Room 309*	45'-0"
Unit 2 Component Cooling Pp Room 201*	5'-0"
Unit 2 East Piping Area 203*	5'-0"
Unit 2 Rad Exh Vent Equip Room 204*	5'-0"
Unit 2 Service Water Pp Room 205*	5'-0"
Unit 2 Boric Acid TK and Pp Room 215*	5'-0"
Unit 2 Reactor Coolant Makeup Pump Room 215A*	5'-0"
Unit 2 Charging Pump Room 105*	(-)10'-0"
Unit 2 Misc Waste Monitor TK Room 106*	(-)10'-0"
Unit 2 ECCS Pump Room 101*	(-)15'-0"
<b>21 Diesel Generator</b>	45'-0"
Unit 2 East Pipe Pen Room 206/310*	5'-0"

NOTE: SPRINKLERS PROTECTING ALL ROOMS LISTED UNDER HEADING "UNIT 2" WILL BE MADE OPERATIONAL LATER IN 1981 EXCEPT FOR "21 DIESEL GENERATOR" WHICH IS NOW OPERATIONAL.

\*Sprinklers required to ensure the OPERABILITY of redundant safe ~~shutdown~~ SHUTDOWN equipment.



## PLANT SYSTEMS

## HALON SYSTEMS

### LIMITING CONDITION FOR OPERATION

3.7.11.3 The following Halon systems shall be OPERABLE with the storage tanks having at least 95% of full charge weight (or level) and 90% of full charge pressure.

- a. Cable spreading rooms total flood system, and associated vertical cable chase 1C, Unit 1x (UNIT 2)
- b. 480 volt switchgear rooms 27 & 45' elevation Unit 1x (UNIT 2)

APPLICABILITY: Whenever equipment protected by the Halon system is required to be OPERABLE.

### ACTION:

- a. **BOTH THE PRIMARY AND BACKUP HALON SYSTEMS PROTECTING THE AREAS**  
With ~~one or more of the above required Halon systems inoperable,~~  
within one hour establish a ~~fire watch with backup~~ **1x HOURLY**  
fire suppression equipment for those areas ~~protected by the~~  
~~system of equipment shall be inoperable.~~  
**INOPERABLE HALON SYSTEM.** Restore the system to OPERABLE  
status within 14 days, or, in lieu of any other report required by  
Specification 3.9.1, prepare and submit a Special Report to the  
Commission pursuant to Specification 3.9.2 within the next 30 days  
outlining the action taken, the cause of the inoperability and  
the plans and schedule for restoring the system to OPERABLE status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

4.7.11.3 Each of the above required Halon systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power operated or automatic) in the flow path is in its correct position.
- b. At least once per 6 months by verifying Halon storage tank weight (level) and pressure.
- c. At least once per 18 months by:
  1. Verifying the system, including associated ventilation dampers and fire door release mechanisms, actuates manually and automatically, upon receipt of a simulated actuation signal, and,
  2. Performance of a flow test through headers and nozzles to assure no blockage.

## PLANT SYSTEMS

### FIRE HOSE STATIONS

#### LIMITING CONDITIONS FOR OPERATION

3.7.11.4 The fire hose stations shown in Table 3.7-~~1~~<sup>6</sup> shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the fire hose stations is required to be OPERABLE.

#### ACTION:

- a. With one or more of the fire hose stations shown in Table 3.7-~~1~~<sup>6</sup> inoperable, route an additional equivalent capacity fire hose to the unprotected area(s) from an OPERABLE hose station within 1 hour.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.7.11.4 Each of the fire hose stations shown in Table 3.7-~~1~~<sup>6</sup> shall be demonstrated OPERABLE:

- a. At least once per 31 days by visual inspection of the station to assure all required equipment is at the station. Hose stations located in the containment shall be visually inspected on each ~~SCHEDULED~~ reactor shutdown, but not more frequently than every 31 days.
- b. At least once per 18 months by:
  1. Removing the hose for inspection and re-racking, and
  2. Replacement of all degraded gaskets in couplings.
- c. At least once per 3 years by:
  1. Partially opening each hose station valve to verify valve OPERABILITY and no flow blockage.
  2. Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station or replacement with a new hose.

TABLE 3.7-6  
FIRE HOLE STATIONS

<u>LOCATION</u>	<u>ELEVATION</u>	<u>NUMBER OF HOLE STATIONS - EACH UNIT</u>
1. Containment	10'	2
	45'	2
	69'	2
2. Auxiliary Building	-15'*	1
	-11'*	2
	3'*	6 (Unit 2:3) <del>_____</del>
	27'	3 (Unit 2:2) <del>_____</del>
	45'	1 (Unit 2:4) <del>_____</del>
	69'*	1 (Unit 2:3) <del>_____</del>
3. Turbine building, Heater Bay		
* Outside Service Water Pump Rooms	10'	3 (Unit 2:2) <del>_____</del>
* Outside Feeder Water Pipe Rooms		
* Outside Switchgear Room	27'	2 (Unit 2:1) <del>_____</del>
* Outside Switchgear Room	45'	3 (Unit 2:2) <del>_____</del>
4. Intake Structure	10'*	1

CALVERT CLIFFS - UNIT 1 (UNIT 2)

3/4 7-74

Amendment No.

\* ~~\_\_\_\_\_~~ Fire Hole Stations required for primary protection to ensure the OPERABILITY of safety related equipment.

## PLANT SYSTEMS

### YARD FIRE HYDRANTS AND HYDRANT HOSE HOUSES

#### LIMITING CONDITION FOR OPERATION

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3.7.11.5 The following yard fire hydrants and associated hydrant hose houses shall be OPERABLE.

APPLICABILITY: Whenever equipment in the areas protected by the yard fire hydrants is required to be OPERABLE.

- a. #6 yard hydrant and associated hydrant hose house, which provides primary protection for Unit 2 RWT blockhouse.
- b. #7 yard hydrant and associated hydrant hose house, which provides primary protection for Unit 1 RWT blockhouse.

#### ACTION:

- a. With one or more of the yard fire hydrants or associated hydrant hose houses inoperable, within 1 hour have sufficient additional lengths of 3½ inch diameter hose located in an adjacent OPERABLE hydrant hose house to provide service to the unprotected area(s) if the inoperable fire hydrant or associated hydrant hose house is the primary means of fire suppression. Restore the hydrant or hose house to OPERABLE status within 14 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the inoperability, and the plans and schedule for restoring the hydrant or hose house to OPERABLE status.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

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4.7.11.5 Each of the yard fire hydrants and associated hydrant hose houses shall be demonstrated OPERABLE:

- a. At least once per 31 days by visual inspection of the hydrant hose house to assure all required equipment is at the hose house.
- b. At least once per 6 months (once during March, April or May and once during September, October or November) by visually inspecting each yard fire hydrant and verifying that the hydrant barrel is dry and that the hydrant is not damaged.
- c. At least once per 12 months by:
  1. Conducting a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at any yard fire hydrant.
  2. Inspecting all the gaskets and replacing any degraded gaskets in the couplings.
  3. Performing a flow check of each hydrant to verify its OPERABILITY.

## FIRE BARRIER PENETRATIONS

### LIMITING CONDITION FOR OPERATION

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3.7.12 All fire barrier penetrations (i.e., cable penetration barriers, fire doors and fire dampers), in fire zone boundaries, protecting safe **SHUT DOWN** areas shall be functional.

APPLICABILITY: At all times.

#### ACTION:

- a. With one or more of the above required fire barrier penetrations non-functional, within one hour either establish a continuous fire watch on at least one side of the affected penetration; or verify the OPERABILITY of fire detectors on at least one side of the non-functional fire barrier and establish a hourly fire watch patrol; \* Restore the non-functional fire barrier penetration(s) to functional status within 7 days or, in lieu of any other report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within the next 30 days outlining the action taken, the cause of the non-functional penetration and plans and schedule for restoring the fire barrier penetration(s) to functional status.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

### SURVEILLANCE REQUIREMENTS

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4.7.12 Each of the above required fire barrier penetrations shall be verified to be functional:

- a. At least once per 18 months by a visual inspection.
- b. Prior to returning a fire barrier penetration to functional status following repairs or maintenance by performance of a visual inspection of the affected fire barrier penetration(s).  
  
\* or verify the operability of automatic sprinkler systems (including the water flow alarm and supervisory system) on both sides of the non-functional fire barrier.