

15.3.14 FIRE PROTECTION SYSTEM (This section was deleted as of XX/XX/XX.)

Applicability

~~Applies to the fire protection components which provide fire protection capability for equipment required for safe plant shutdown at all times when those systems are required to be operable.—~~

~~The provisions of Specification 15.3.0 are not applicable to these specifications.—~~

Objective

~~To specify the requirements for fire protection components which would be employed to mitigate the consequences of fires which could affect equipment required for safe plant shutdown.—~~

Specification

~~A.— Fire Suppression Water System~~

~~1.— Fire Main Loop Water Supply~~

- ~~a.— Both fire pumps shall be operable; or~~
- ~~b.— One fire pump may be inoperable provided that the second fire pump is tested to demonstrate operability and is tested once every 24 hours thereafter; or,—~~
- ~~c.— Both fire pumps may be inoperable provided that a backup fire main loop water supply is operable within 24 hours.—~~
- ~~d.— If a, b, or c cannot be fulfilled, both reactors shall be placed in hot standby within the next 6 hours and in cold shutdown within the following thirty (30) hours.—~~

~~2.— Water Sprinkler System~~

- ~~a.— The water sprinkler systems listed in Table 15.3.14 1 shall be operable whenever equipment protected by the system is required to be operable.—~~
- ~~b.— A water sprinkler system listed in Table 15.3.14 1 may be inoperable provided that:—~~

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~~(1) Within one hour of determining that one or more of the above required spray and/or sprinkler systems are inoperable, for those areas in which redundant systems or components could be damaged, establish an hourly fire watch inspection and provide backup fire suppression capability. For other areas, establish an hourly fire watch inspection. Restore the system to operable status within 14 days or, in lieu of any other report required by Specification 15.6.6, prepare and submit a special report pursuant to Specification 15.6.9.2.F.~~

### ~~3. Fire Hose Stations~~

- ~~a. Fire hose stations for the areas listed in Table 15.3.14 1 shall be operable whenever equipment in the areas protected by the fire hose stations is required to be operable.~~
- ~~b. Within one hour of determining that one or more of the fire hose stations shown in Table 15.3.14 1 are inoperable, route backup water suppression capability or provide portable fire suppression capability to the unprotected area(s). Restore the fire hose station to operable status within 14 days or, in lieu of any other report required by Specification 15.6.6, prepare and submit a special report pursuant to Specification 15.6.9.2.F.~~

### ~~4. Halon Gaseous Suppression Systems~~

- ~~a. The Halon Gaseous suppression systems listed in Table 15.3.14 1 shall be operable whenever equipment protected by the Halon system is required to be operable.~~
- ~~b. One supply source of Halon for the gaseous suppression systems in Table 15.3.14 1 may be inoperable provided that within one hour of determining the condition, fire hose station suppression capability for the affected area is provided.~~
- ~~c. Both supply sources of Halon for the gaseous suppression systems listed in Table 15.3.14 1 may be inoperable provided that:—~~
  - ~~(1) Within 1 hour of determining the condition an hourly fire watch inspection is established and that backup fire suppression capability is provided for those areas in which redundant systems or components could be damaged; for other~~

~~areas, establish an hourly fire watch inspection. Restore the system to operable status within 14 days, or in lieu of any other report required by Specification 15.6.6, prepare and submit a special report pursuant to Specification 15.6.9.2.F.~~

## ~~B. Fire Detection~~

### ~~1. Fire Detection Systems~~

- ~~a. The fire detection system components for each area listed in Table 15.3.14-1 shall be operable whenever equipment protected by the fire detection components is required to be operable.~~
- ~~b. The control room annunciation for the fire detection system may be inoperable provided that within one hour of determining the condition, the area control panels for each area listed in Table 15.3.14-1 are surveilled hourly.~~
- ~~c. Area control panels for the areas listed in Table 15.3.14-1 may be inoperable provided that:~~
  - ~~(1) Within one hour of determining that the area control panel is inoperable, the affected area is inspected to assure that potential fire hazards are minimized;~~
  - ~~(2) Activity in the affected area is restricted to that which is necessary for continued operation;~~
  - ~~(3) A fire watch inspection is performed in the affected area hourly.~~
- ~~d. For each area listed in Table 15.3.14-1 which is not protected by a Halon gaseous suppression system:~~
  - ~~(1) A single detection device may be inoperable.~~
  - ~~(2) As long as at least 75% of an area's detection devices remain operable, multiple non-adjacent detection devices may be inoperable.~~
  - ~~(3) More than 25% of an area's detection devices or multiple adjacent detection devices may be inoperable provided that:~~
    - ~~(a) Within one hour of determining that the detection devices are inoperable, the affected area is inspected to assure that potential fire hazards are minimized.~~

- ~~(b) Activity in the affected area is restricted to that which is necessary for continued operation;~~
- ~~(c) A fire watch inspection is performed in the affected area hourly.~~
- e. ~~For each area listed in Table 15.3.14-1 which is protected by Halon gaseous suppression system, any number of detection device(s) may be inoperable provided that:~~
  - ~~(1) Within one hour of determining that the detection device(s) are inoperable, the affected area is inspected to assure that potential fire hazards are minimized;~~
  - ~~(2) Activity in the affected area is restricted to that which is necessary for continued operation;~~
  - ~~(3) A fire watch inspection is performed in the affected area hourly.~~
- f. ~~Restore the inoperable instrument(s) to operable status within 14 days, or in lieu of any other report required by Specification 15.6.6, prepare and submit a special report pursuant to Specification 15.6.9.2.F.~~

## ~~C. Fire Barriers~~

### ~~1. Fire Barrier Penetration Seals~~

- a. ~~All fire barrier penetration seals protecting safety related areas shall be operable.~~
- b. ~~A fire barrier penetration seal may be inoperable provided that:~~
  - ~~(1) Within one hour of determining that the fire barrier penetration seal is inoperable, the immediate area on each side of the fire barrier is inspected to assure that potential fire hazards are minimized;~~
  - ~~(2) Activity in the immediate area on each side of the fire barrier is restricted to that which is necessary:~~
    - ~~(a) for continued operation;~~
    - ~~(b) To enable restoration of penetration seal operability.~~

- ~~(3) A fire watch inspection shall be performed on each side of the fire barrier hourly.~~
- ~~(4) Restore the inoperable fire barrier to operable status within 7 days or, in lieu of any other report required by Specification 15.6.6, prepare and submit a special report pursuant to Specification 15.6.9.2.F.~~

~~Basis~~

~~The overall fire protection program at Point Beach Nuclear Plant utilizes the principles of defense in depth. This includes early warning fire detection and redundant fire suppression capability. Collectively, these measures ensure equipment operability, provide adequate capability to prevent and minimize damage to safety related equipment, and allow safe plant shutdown in the event of a fire occurrence. Should a portion or component of the fire protection system be inoperable, these specifications provide assurance that redundant methods of fire protection are readily available and that the capability to mitigate the consequences of a fire is maintained.~~



TABLE 15.3.14-1  
SAFE SHUTDOWN AREA FIRE PROTECTION

AREA	ELEVATION	AUTOMATIC SUPPRESSION		MANUAL SUPPRESSION	
		WATER SPRINKLER SYSTEM	GAS SUPPRESSION SYSTEM	FIRE HOSE STATION	FIRE DETECTION
1. Auxiliary Building South	-8'	(X) Partial		X-	15
2. Auxiliary Building Center A. Safety Injection Pumps B. Component Cooling Water Pump	-8'	X X		X-	13
3. Auxiliary Building North	-8'	(X) Partial		X-	9
4. Auxiliary Building West	8' & Below			X-	16
5. Auxiliary Building South	26'			X-	3
6. Auxiliary Building Center	26'			X-	17
7. Auxiliary Building North	26'			X-	7
8. Auxiliary Building Center	46'			X-	6
9. Auxiliary Feedwater Pump Room	-8'		X	X-	11
10. Vital Switchgear & Battery Room	-8'		X	X-	8
11. G01 Diesel Generator Room	-8'	X		X-	4
12. G02 Diesel Generator Room	-8'	X		X-	4
13. Cable Spreading Room	26'		X	X-	17
14. Circulating Water Pump House A. Service Water Pumps	-8'	X		X-	15
15. G03 Diesel Generator Room	28'	X		X	3
16. G04 Diesel Generator Room	28'	X		X	3
17. G03 Vital Switchgear Room	28'			X	2
18. G04 Vital Switchgear Room	28'			X	2
19. G03 Fuel Oil Day Tank Room	28'	X		X	1
20. G04 Fuel Oil Day Tank Room	28'	X		X	1
21. G01/G02 Fuel Oil Transfer Pump Room	28'	X		X	1

\*Diesel Generator Building fire hose stations are located in Mechanical Equipment Room.

15.4.15 FIRE PROTECTION SYSTEM (This section was deleted as of XX/XX/XX.)

Applicability

~~Applies to the periodic inspection and testing requirements of fire protection equipment specified in Section 15.3.14.—~~

Objective

~~To verify the operability of fire protection system components.—~~

Specification

~~A. Fire Suppression Systems~~

~~1. Fire Main Loop Water Supply~~

<u>Test</u>	<u>Frequency</u>
<del>a. Flowpath valve position verification</del>	<del>Monthly</del>
<del>b. Fire pump functional test</del>	<del>Monthly</del>
<del>c. Fire pump capacity test</del>	<del>Yearly</del>
<del>d. Diesel driven fire pump engine</del>	
<del>(1) Fuel volume verification</del>	<del>Monthly</del>
<del>(2) Diesel fuel sample analysis</del>	<del>Quarterly</del>
<del>(3) Periodic inspection</del>	<del>18 months</del>
<del>e. Diesel driven fire pump battery and charger</del>	
<del>(1) Battery voltage verification</del>	<del>Weekly</del>
<del>(2) Electrolyte level</del>	<del>Weekly</del>
<del>(3) Electrolyte specific gravity</del>	<del>Quarterly</del>
<del>(4) Periodic inspection</del>	<del>18 months</del>

~~2. Water Sprinkler Systems~~

<del>a. Flowpath valve position verification</del>	<del>Monthly</del>
<del>b. Inspector's test</del>	<del>Yearly</del>
<del>c. Visual header and nozzle inspection</del>	<del>18 months</del>

### ~~3. Fire Hose Stations~~

<del>Test</del>	<del>Frequency</del>
<del>a. Visual inspection</del>	<del>Monthly</del>
<del>b. Hose Hydrostatic test</del>	<del>2 years</del>
<del>c. Valve cycle test</del>	<del>3 years</del>

### ~~4. Halon Gaseous Suppression Systems~~

<del>a. Halon quantity verification</del>	<del>6 months</del>
<del>b. Functional test</del>	<del>Yearly</del>
<del>c. Visual header and nozzle inspection</del>	<del>Yearly</del>

## ~~B. Fire Detection~~

### ~~1. Fire Detection System~~

<del>a. Channel functional test</del>	<del>6 months</del>
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## ~~C. Fire Barriers~~

### ~~1. Fire Barrier Penetration Seals~~

<del>a. Visual inspection</del>	<del>18 months</del>
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### Basis

~~Normally, the fire protection is not in use. However, the system components are required to perform as designed in the event of a fire emergency. The National Fire Protection Association and the plant insurance carrier have specified periodic tests and inspections to demonstrate fire protection equipment operability. The listed tests and inspection are based upon the requirements of these organizations. Testing more frequently than that listed is not considered necessary to ensure operability and performance.~~



- b. At least one licensed Operator shall be in the control room when fuel is in either reactor.
- c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
- d. An individual qualified in radiation protection procedures shall be on site when fuel is in either reactor.\*\*
- e. All core alterations shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- ~~f. A Fire Brigade of at least 5 members shall be maintained onsite at all times.\*\* This excludes 3 members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency.~~

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\*SRO = NRC Senior Reactor Operator License

RO = NRC Reactor Operator License

\*\*This shift may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of personnel, provided immediate action is taken to restore the shift makeup to within the minimum requirements.

#### 15.6.4 TRAINING

15.6.4.1 A retraining and replacement training program for the facility staff shall be maintained under the direction of the Training Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55.

~~15.6.4.2 A training program for the Fire Brigade shall meet or exceed the requirements of Section 27 of the NFPA Code 1976, except that the meeting frequency may be quarterly.~~

#### 15.6.5 REVIEW AND AUDIT

##### 15.6.5.1 Manager's Supervisory Staff

15.6.5.1.1 The Manager's Supervisory Staff (MSS) shall function to advise the Manager on all matters related to nuclear safety.

15.6.5.1.2 The Manager's Supervisory Staff shall be selected and designated by the Manager from a list of qualified individuals in the following disciplines:

Operations  
Maintenance  
Health Physics  
Engineering  
Licensing  
Training  
Chemistry

15.6.5.1.3 Each individual representing a MSS discipline shall meet or exceed the qualification requirements specified in Section 4.2 of ANSI N18.1-1971, except as described in Specification 15.6.3.2 for the Health Physics Manager.

D. Failure of Containment High-Range Radiation Monitor

A minimum of two in-containment radiation-level monitors with a maximum range of  $10^8$  rad/hr ( $10^7$ /hr for photons only) should be operable at all times except for cold shutdown and refueling outages. This is specified in Table 15.3.5-5, item 7. If the minimum number of operable channels are not restored to operable condition within seven days after failure, a special report shall be submitted to the NRC within thirty 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.

E. Failure of Main Steam Line Radiation Monitors

If a main steam line radiation monitor (SA-11) fails and cannot be restored to operability in seven days, prepare a special report within thirty days of the event, outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the channel to operable status.

F. ~~Fire Protection System Degradation~~

~~Degradation of fire protection systems or components as described in Specification 15.3.14 which render the system inoperable shall be the subject of a special report, prepared and submitted within 30 days. The report will outline the action taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.~~

3. F. The licensee shall maintain in effect and fully implement all provisions of the NRC approved physical security plan, including amendments and changes made pursuant to 10 CFR 50.54(p). The approved security plan, withheld from public disclosure pursuant to 10 CFR 2.790(d), is identified as "Point Beach Nuclear Plant Physical Security Plan", dated May 24, 1977 as revised September 25, 1978, February 2, 1979, March 29, 1979, December 7, 1979, and May 29, 1980. This plan includes as the NRC approved Safeguards Contingency Plan the revised Chapter 8, Revision 3 submitted with latter dated March 6, 1981 which, in accordance with 10 CFR 73.40(b), shall be fully implemented within 30 days of this approval by the Commission.

G. Safety Injection Logic

The licensee is authorized to modify the safety injection actuation logic and actuation power supplies and related changes as described in licensee's application for amendment dated April 27, 1979, as supplemented May 7, 1979. In the interim period until the power supply modification has been completed, should any DC powered safety injection actuation channel be in a failed condition for greater than one hour, the unit shall thereafter be shutdown using normal procedures and placed in a block-permissive condition for safety injection actuation.

- H. ~~The licensee may proceed with and is required to complete the modifications identified in Paragraphs 3.1.1 through 3.1.33 of the NRC's Fire Protection Safety Evaluation Report (SER) for the facility dated August 2, 1979. These modifications shall be completed as specified in Table 3.1 of the SER or supplements thereto.~~

~~The licensee is required to implement and maintain the administrative controls identified in Section 6 of the NRC's Fire Protection Safety Evaluation Report on the Facility dated August 2, 1979 and supplements thereto.~~

Wisconsin Electric shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated August 2, 1979 (and Supplements dated October 21, 1980, January 22, 1981, and July 27, 1988), subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

"I. Secondary Water Chemistry Monitoring Program

The licensee shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:

disclosure pursuant to 10 CFR 2.790(d), is identified as "Point Beach Nuclear Plant Physical Security Plan", dated May 24, 1977 as revised September 25, 1978, February 2, 1979, March 29, 1979, December 7, 1979, and May 29, 1980. This plan includes as the NRC approved Safeguards Contingency Plan the revised Chapter 8, Revision 3 submitted with latter dated March 6, 1981 which, in accordance with 10 CFR 73.40(b), shall be fully implemented within 30 days of this approval by the Commission.

G. Safety Injection Logic

The licensee is authorized to modify the safety injection actuation logic and actuation power supplies and related changes as described in licensee's application for amendment dated April 27, 1979, as supplemented May 7, 1979. In the interim period until the power supply modification has been completed, should any DC powered safety injection actuation channel be in a failed condition for greater than one hour, the unit shall thereafter be shutdown using normal procedures and placed in a block-permissive condition for safety injection actuation.

H. ~~The licensee may proceed with an is required to complete the modifications identified in Paragraphs 3.1.1 through 3.1.33 of the NRC's Fire Protection Safety Evaluation Report (SER) for the facility dated August 2, 1979. These modifications shall be completed as specified in Table 3.1 of the SER or supplements thereto.~~

~~The licensee is required to implement and maintain the administrative controls identified in Section 6 of the NRC's Fire Protection Safety Evaluation Report on the Facility dated August 2, 1979 and supplements thereto.~~

Wisconsin Electric shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility and as approved in the SER dated August 2, 1979 (and Supplements dated October 21, 1980, January 22, 1981, and July 27, 1988), subject to the following provision:

The licensee may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

"I. Secondary Water Chemistry Monitoring Program

The licensee shall implement a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:

1. Identification of a sampling schedule for the critical parameters and control points for these parameters;
2. Identification of the procedures used to quantify parameters that are critical to control points;
3. Identification of process sampling points



## 7.2 FIRE PROTECTION TECHNICAL SPECIFICATIONS

Wisconsin Electric Power Company applied for amendments to Facility Operating Licenses DPR-24 and DPR-27 for Point Beach Nuclear Plant, Units 1 and 2 to remove fire protection requirements from the Technical Specifications and incorporate them in PBNP's Final Safety Analysis Report and Fire Protection Evaluation Report (FPER).

The following sections of the FPER provide the technical specifications for:

1. the PBNP Fire Protection Program, regarding Fire Brigade Staffing and Training requirements, (FPER Section 7.2.1)
2. Limiting Conditions for Operation and Surveillance requirements associated with the plant fire protection systems. (FPER Sections 7.2.2 and 7.2.3)
3. Reporting requirements should degradation of fire protection systems or components occur rendering the system(s) inoperable. (FPER Section 7.2.2.5)

These sections provide all the operational conditions, remedial actions and test requirements for plant fire detection systems, fire suppression systems, fire barriers, and fire brigade staffing necessary to maintain nuclear safety and safe shutdown capability in accordance with 10 CFR 50 Appendix R.

The following aspects of the fire protection program are still maintained in the Plant Technical Specifications. The Manager's Supervisory Staff (MSS) is the group responsible for the review of the fire protection program and implementing procedures, and submittal of any recommended changes to the Off Site Review Committee (OSRC). The MSS is responsible for reviewing the fire protection program every 24 months to ensure the program continues to meet established



commitments and requirements in accordance with Plant Technical Specifications (TS) 15.6.5.1.8.h.

Plant Technical Specifications (TS) 15.6.8.1.8 requires that the fire protection program be implemented and maintained using approved plant procedures.

TS 15.6.5.3 describes the inspection and audit requirements associated with the fire protection program. Specifically that:

- a. an independent fire protection and loss prevention inspection and audit be performed annually by qualified personnel.
- b. an inspection and audit of the fire protection program be performed by a qualified fire consultant at least every 3 years.

## **7.2.1 FIRE BRIGADE ORGANIZATION**

### **7.2.1.1 Fire Brigade Staffing**

A Fire Brigade of at least 5 members shall be maintained onsite at all times. This excludes 3 members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency.

NOTE: This shift may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of personnel, provided immediate action is taken to restore the shift makeup to within the minimum requirements.

#### **7.2.1.2 Fire Brigade Training**

A training program for the Fire Brigade shall meet or exceed the requirements of Section 27 of the NFPA Code - 1976, except that the meeting frequency may be quarterly.

### **7.2.2 OPERABILITY OF FIRE PROTECTION SYSTEMS**

#### **7.2.2.1 Applicability**

Applies to the fire protection components which provide fire protection capability for equipment required for safe plant shutdown at all times when those systems are required to be operable.

#### **7.2.2.2 Objective**

This section specifies the requirements for fire protection components which would be employed to mitigate the consequences of fires which could affect equipment required for safe plant shutdown.

#### **7.2.2.3 Specification**

##### **A. Fire Suppression Water System**

##### **1. Fire Main Loop Water Supply**

- a. Both fire pumps shall be operable; or
- b. One fire pump may be inoperable provided that the second fire pump is tested to demonstrate operability and is tested once every 24 hours thereafter; or,
- c. Both fire pumps may be inoperable provided that a backup fire main loop water supply is operable within 24 hours.

- d. If a, b, or c cannot be fulfilled, both reactors shall be placed in hot standby within the next 6 hours and in cold shutdown within the following thirty (30) hours.

## **2. Water Sprinkler System**

- a. The water sprinkler systems listed in Table 7.2-2 shall be operable whenever equipment protected by the system is required to be operable.
- b. A water sprinkler system listed in Table 7.2-2 may be inoperable provided that:
  - (1) Within one hour of determining that one or more of the above required spray and/or sprinkler systems are inoperable, for those areas in which redundant systems or components could be damaged, establish an hourly fire watch inspection and provide backup fire suppression capability. For other areas, establish an hourly fire watch inspection. Restore the system to operable status within 14 days or prepare and submit a special report to the NRC in accordance with FPER Section 7.2.2.5.

## **3. Fire Hose Stations**

- a. Fire hose stations for the areas listed in Table 7.2-2 shall be operable whenever equipment in the areas protected by the fire hose stations is required to be operable.
- b. Within one hour of determining that one or more of the fire hose stations shown in Table 7.2-2 are inoperable, route backup water suppression capability or provide portable fire suppression capability to the unprotected area(s). Restore the fire hose station to operable status within 14 days or prepare and submit a special report to the NRC in accordance with FPER Section 7.2.2.5.

#### **4. Halon Gaseous Suppression Systems**

- a. The Halon Gaseous suppression systems listed in Table 7.2-2 shall be operable whenever equipment protected by the Halon system is required to be operable.
- b. One supply source of Halon for the gaseous suppression systems in Table 7.2-2 may be inoperable provided that within one hour of determining the condition, fire hose station suppression capability for the affected area is provided.
- c. Both supply sources of Halon for the gaseous suppression systems listed in Table 7.2-2 may be inoperable provided that:
  - (1) Within 1 hour of determining the condition an hourly fire watch inspection is established and that backup fire suppression capability is provided for those areas in which redundant systems or components could be damaged; for other areas, establish an hourly fire watch inspection. Restore the system to operable status within 14 days or prepare and submit a special report to the NRC in accordance with FPER Section 7.2.2.5.

#### **B. Fire Detection**

##### **1. Fire Detection Systems**

- a. The fire detection system components for each area listed in Table 7.2-2 shall be operable whenever equipment protected by the fire detection components is required to be operable.
- b. The control room annunciation for the fire detection system may be inoperable provided that within one hour of determining the condition, the area control panels for each area listed in Table 7.2-2 are surveilled hourly.
- c. Area control panels for the areas listed in Table 7.2-2 may be inoperable provided that:

- (1) Within one hour of determining that the area control panel is inoperable, the affected area is inspected to assure that potential fire hazards are minimized;
  - (2) Activity in the affected area is restricted to that which is necessary for continued operation;
  - (3) A fire watch inspection is performed in the affected area hourly.
- d. For each area listed in Table 7.2-2 which is not protected by a Halon gaseous suppression system:
- (1) A single detection device may be inoperable.
  - (2) As long as at least 75% of an area's detection devices remain operable, multiple non-adjacent detection devices may be inoperable.
  - (3) More than 25% of an area's detection devices or multiple adjacent detection devices may be inoperable provided that:
    - (a) Within one hour of determining that the detection devices are inoperable, the affected area is inspected to assure that potential fire hazards are minimized.
    - (b) Activity in the affected area is restricted to that which is necessary for continued operation;
    - (c) A fire watch inspection is performed in the affected area hourly.
- e. For each area listed in Table 7.2-2 which is protected by Halon gaseous suppression system, any number of detection device(s) may be inoperable provided that:
- (1) Within one hour of determining that the detection device(s) are inoperable, the affected area is inspected to assure that potential fire hazards are minimized;
  - (2) Activity in the affected area is restricted to that which is necessary for continued operation;
  - (3) A fire watch inspection is performed in the affected area hourly.

- f. Restore the inoperable instrument(s) to operable status within 14 days, or prepare and submit a special report to the NRC in accordance with FPER Section 7.2.2.5.

## C. Fire Barriers

### 1. Fire Barrier Penetration Seals

- a. All fire barrier penetration seals protecting safety-related areas shall be operable.
- b. A fire barrier penetration seal may be inoperable provided that:
  - (1) Within one hour of determining that the fire barrier penetration seal is inoperable, the immediate area on each side of the fire barrier is inspected to assure that potential fire hazards are minimized;
  - (2) Activity in the immediate area on each side of the fire barrier is restricted to that which is necessary:
    - (a) for continued operation;
    - (b) To enable restoration of penetration seal operability.
  - (3) A fire watch inspection shall be performed on each side of the fire barrier hourly.
  - (4) Restore the inoperable fire barrier to operable status within 7 days or prepare and submit a special report to the NRC in accordance with FPER Section 7.2.2.5.

#### 7.2.2.4 Basis

The overall fire protection program at Point Beach Nuclear Plant utilizes the principles of defense in depth. This includes early warning fire detection and redundant fire suppression capability. Collectively, these measures ensure equipment operability, provide adequate capability to prevent and minimize damage to safety-related equipment, and allow safe plant shutdown in the event of a fire occurrence. Should a portion or component of the fire protection system be



inoperable, these specifications provide assurance that redundant methods of fire protection are readily available and that the capability to mitigate the consequences of a fire is maintained.

#### **7.2.2.5 Reportability**

Degradation of fire protection systems or components as described in FPER Section 7.2.2 present a failure to maintain the plant fire protection systems as previously approved by the NRC. Such failures shall be the subject of a special report, prepared and submitted within 30 days to the NRC. The report shall outline action(s) taken, the cause of the inoperability, and the plans and schedule for restoring the system to operable status.

#### **7.2.2.6 Documentation**

Fire protection system and component operability is verified by periodic tests. Test procedures and completed tests are maintained by plant staff for future review.

### **7.2.3 SURVEILLANCE OF FIRE PROTECTION SYSTEMS**

#### **7.2.3.1 Applicability**

Applies to the periodic inspection and testing requirements of fire protection equipment specified in FPER Section 7.2.2.

#### **7.2.3.2 Objective**

To verify the operability of fire protection system components.

### 7.2.3.3 Specification

#### A. Fire Suppression Systems

<u>Test</u>	<u>Frequency</u>
1. Fire Main Loop Water Supply	
a. Flowpath valve position verification	Monthly
b. Fire pump functional test	Monthly
c. Fire pump capacity test	Yearly
d. Diesel driven fire pump engine	
(1) Fuel volume verification	Monthly
(2) Diesel fuel sample analysis	Quarterly
(3) Periodic inspection	18 months
e. Diesel driven fire pump battery and charger	
(1) Battery voltage verification	Weekly
(2) Electrolyte level	Weekly
(3) Electrolyte specific gravity	Quarterly
(4) Periodic inspection	18 months
2. Water Sprinkler Systems	
a. Flowpath valve position verification	Monthly
b. Inspector's test	Yearly
c. Visual header and nozzle inspection	18 months
3. Fire Hose Stations	
a. Visual inspection	Monthly
b. Hose Hydrostatic test	2 years
c. Valve cycle test	3 years
4. Halon Gaseous Suppression Systems	
a. Halon quantity verification	6 months
b. Functional test	Yearly

- |    |  |           |
|----|--|-----------|
|    | c. Visual header and nozzle inspection | Yearly    |
| B. | Fire Detection                         |           |
|    | 1. Fire Detection System               |           |
|    | a. Channel functional test             | 6 months  |
| C. | Fire Barriers                          |           |
|    | 1. Fire Barrier Penetration Seals      |           |
|    | a. Visual inspection                   | 18 months |

#### 7.2.3.4 Basis

Normally, the fire protection is not in use. However, the system components are required to perform as designed in the event of a fire emergency. The National Fire Protection Association and the plant insurance carrier have specified periodic tests and inspections to demonstrate fire protection equipment operability. The listed tests and inspection are based upon the requirements of these organizations. Testing more frequently than that listed is not considered necessary to ensure operability and performance.

**TABLE 7.2-2**  
**SAFE SHUTDOWN AREA FIRE PROTECTION**

AREA	ELEVATION	AUTOMATIC SUPPRESSION		MANUAL SUPPRESSION	FIRE DETECTION
		WATER SPRINKLER SYSTEM	GAS SUPPRESSION SYSTEM	FIRE HOSE STATION	
1. Auxiliary Building South	8'	(X) Partial		X	15
2. Auxiliary Building Center A. Safety Injection Pumps B. Component Cooling Water Pump	8'	X X		X	13
3. Auxiliary Building North	8'	(X) Partial		X	9
4. Auxiliary Building West	8' & Below			X	16
5. Auxiliary Building South	26'			X	3
6. Auxiliary Building Center	26'			X	17
7. Auxiliary Building North	26'			X	7
8. Auxiliary Building Center	46'			X	6
9. Auxiliary Feedwater Pump Room	8'		X	X	11
10. Vital Switchgear & Battery Room	8'		X	X	8
11. G01 Diesel Generator Room	8'	X		X	4
12. G02 Diesel Generator Room	8'	X		X	4
13. Cable Spreading Room	26'		X	X	17
14. Circulating Water Pumphouse A. Service Water Pumps	8'	X		X	15
15. G03 Diesel Generator Room	28'	X		X*	3
16. G04 Diesel Generator Room	28'	X		X*	3
17. G03 Vital Switchgear Room	28'			X*	2
18. G04 Vital Switchgear Room	28'			X*	2
19. G03 Fuel Oil Day Tank Room	28'	X		X*	1
20. G04 Fuel Oil Day Tank Room	28'	X		X*	1
21. G01/G02 Fuel Oil Transfer Pump Room	28'	X		X*	1

\*Diesel Generator Building fire hose stations are located in Mechanical Equipment Room.

### 7.3 FINAL SAFETY ANALYSIS REPORT (FSAR)

The PBNP Final Safety Analysis Report (FSAR) describes PBNP's safety analysis in support of WE's application for operating the facility. It discusses the design and safety objectives to be used in operation of the plant.

FSAR Section 9.6.1 describes the overall fire protection design and license bases for the PBNP fire protection program to ensure that the probability of events such as fires and explosions and potential consequences of such events will not result in undue risk to the health and safety of the public.

The FSAR identifies the FPER as the controlling document for the fire protection program.

The FSAR allows Wisconsin Electric to make changes in accordance with the guidelines in Generic Letter 86-10 to this approved program without prior NRC approval if those changes will not adversely affect Point Beach's ability to achieve and maintain safe shutdown in the event of a fire. In such cases, an evaluation must be performed in accordance with 10 CFR 50.59 to determine if an unreviewed safety question is involved. This evaluation must include a fire hazards analysis and an assessment of the change's impact on the existing fire protection program. The assessment must also include a review of the effects on combustible loading and distribution and the consideration of whether circuits or components, including associated circuits, for a train of equipment needed for safe shutdown are being affected. If the valuation finds that the change could result in Point Beach not being in conformance with Appendix R or some other aspect of the approved fire protection program, or being outside the basis for an existing exemption, Wisconsin Electric must make modifications to achieve conformance or justify and request exemption from the NRC in accordance with 10 CFR 50.12.