

NOV 29 1985

Docket Nos. 50-440/441

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Dear Mr. Edelman:

SUBJECT: FIRE PROTECTION PROGRAM FSAR/TECHNICAL SPECIFICATION CHANGES  
FOR THE PERRY NUCLEAR POWER PLANT

In your letter of November 15, 1985, you proposed to delete the fire protection program elements from the Perry Unit 1 Technical Specifications, and in lieu thereof, to document those elements in the FSAR. The staff finds this change, wherein you describe and control the fire protection program through the FSAR, to be acceptable, provided you retain the administrative controls related to the program as reflected in the enclosed markup pages of the November 12, 1985 final draft of the Technical Specifications. CEI is requested to certify the Perry, Unit 1 Technical Specifications implementing the changes reflected in the enclosure.

Should there be any questions or need to discuss this matter further with the staff, please let me know.

Sincerely,

Original Signed by

Walter R. Butler, Director  
BWR Project Directorate No. 4  
Division of BWR Licensing

Enclosure:  
As stated

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

NOV 29 1985

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Sincerely,

A handwritten signature in cursive script, reading "Walter R. Butler", is positioned above the typed name.

Walter R. Butler, Director  
BWR Project Directorate No. 4  
Division of BWR Licensing

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# FINAL DRAFT

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## INSTRUMENTATION

### FIRE DETECTION INSTRUMENTATION

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#### LIMITING CONDITION FOR OPERATION

3.3.7.8 As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3.7.8-1 shall be OPERABLE.

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

#### ACTION:

- a. With the number of OPERABLE fire detection instruments in one or more zones:
  1. Less than, but more than one-half of, the Total Number of Instruments shown in Table 3.3.7.8-1 for Function A, restore the inoperable Function A instrument(s) to OPERABLE status within 14 days or, within 1 hour establish a fire watch patrol to inspect the zone(s)/area(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect that containment zone at least once per 8 hours or monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.7 and 4.6.2.6.
  2. One less than the Total Number of Instruments shown in Table 3.3.7.8-1 for Function B, or one-half or less of the Total Number of Instruments shown in Table 3.3.7.8-1 for Function A, or with any two or more adjacent instruments inoperable, within 1 hour establish a fire watch patrol to inspect the zone(s)/area(s) with the inoperable instrument(s) at least once per hour, unless the instrument(s) is located inside the containment, then inspect that containment zone at least once per 8 hours or monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.7 and 4.6.2.6.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.3.7.8.1 Each of the above required fire detection instruments which are accessible during unit operation with the exception of the control room, Area 1CC-5a, shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST. Fire detectors which are not accessible during unit operation shall be demonstrated OPERABLE by the performance of a CHANNEL FUNCTIONAL TEST during each COLD SHUTDOWN exceeding 24 hours unless performed in the previous 6 months.

4.3.7.8.2 The fire detection instruments in the control room, Area 1CC-5a, shall be demonstrated OPERABLE at least once per 6 months by performance of a CHANNEL FUNCTIONAL TEST of at least 10% of the detectors and the testing shall be scheduled such that all the detectors are tested at least once per 5 years.

4.3.7.8.3 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 6 months.



TABLE 3.3.7.8-1  
FIRE DETECTION INSTRUMENTATION

INSTRUMENT LOCATION Fire Zone/Area	TOTAL NUMBER OF INSTRUMENTS*		
	HEAT (x/y)	FLAME (x/y)	SMOKE (x/y)
A. Reactor Building Unit 1 <sup>#</sup>			
1. 1RB-1b	15/0	0/0	83/0
2. 1RB-1c	39/0	0/0	0/0
3. 1RB-1d	0/0	0/0	2/0
B. Auxiliary Building Unit 1			
1. 1AB-1b	0/0	0/0	9/0
2. 1AB-1c	0/0	0/0	2/0
3. 1AB-1e	0/0	0/0	9/0
4. 1AB-1g	0/0	0/0	9/0
5. 1AB-2	0/0	0/0	20/0
6. 1AB-3a	0/0	0/0	9/0
7. 1AB-3b	0/0	0/0	8/0
C. Intermediate Building			
1. 1B-1	4/0	0/0	29/0
2. 1B-2	0/0	0/0	31/0
3. 1B-3	0/0	0/0	30/0
4. 1B-4	0/0	0/0	42/0
5. 1B-5	7/0	0/0	23/0
D. Control Complex			
1. CC-1a, 1b, 1c	0/0	0/0	41/0
2. CC-2a	0/0	0/0	23/0
3. CC-2b, 2c	0/0	0/0	28/0
4. 1CC-3a	0/0	0/0	7/0
5. 1CC-3b	0/0	0/0	2/0
6. 1CC-3c	0/0	0/0	7/0
7. 1CC-3d	0/0	0/0	1/0
8. 1CC-3e	0/0	0/0	2/0
9. 1CC-4a	0/18	0/0	7/0
10. 1CC-4b	0/18	0/0	6/0
11. 1CC-4c	0/0	0/0	1/0
12. 1CC-4d	0/0	0/0	2/0
13. 1CC-4e	0/18	0/0	7/0
14. 1CC-4f	0/21	0/0	7/0
15. 1CC-4g	0/0	0/0	1/0
16. 1CC-4h	0/0	0/0	2/0
17. 1CC-4i	0/0	0/0	8/0
18. 1CC-5a	336/0	0/0	202/0
19. 1CC-5b	0/0	0/0	0/4
20. 1CC-5c	0/0	0/0	7/0
21. CC-6	0/0	0/0	2/0
22. 1CC-6	0/0	0/0	30/0

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TABLE 3.3.7.8-1 (Continued)  
FIRE DETECTION INSTRUMENTATION

<u>INSTRUMENT LOCATION</u>	<u>TOTAL NUMBER OF INSTRUMENTS*</u>		
	<u>HEAT</u> <u>(x/y)</u>	<u>FLAME</u> <u>(x/y)</u>	<u>SMOKE</u> <u>(x/y)</u>
Fire Zone/Area			
E. Diesel Generator Building			
1. 1DG-1a	2/6	0/0	3/0
2. 1DG-1b	2/6	0/0	3/0
3. 1DG-1c	2/6	0/0	3/0
4. 1DG-1d	0/0	0/0	3/0
F. Emergency Service Water Pumphouse			
1. ESW-1a	0/0	0/0	10/0
2. ESW-1b	0/0	0/0	1/0
G. Fuel Handling Building			
1. FH-1	0/0	0/0	10/0
2. FH-2a	0/0	0/0	7/0
3. FH-2b	0/0	0/0	5/0
4. FH-3	0/0	16/0	0/0

\*(x/y): x is number of Function A (early warning fire detection and notification only) instruments.  
y is number of Function B (early warning fire detection and suppression only) instruments.

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

PLANT SYSTEMS

3/4.7.6 FIRE SUPPRESSION SYSTEMS

**FINAL DRAFT**

FIRE SUPPRESSION WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.6.1 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. An OPERABLE flow path capable of taking suction from the ESW forebay 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 standpipe and the last valve ahead of the deluge valve on each deluge or spray system required to be OPERABLE per Specifications 3.7.6.2, 3.7.6.4, and 3.7.6.5.

APPLICABILITY: At all times.

ACTION:

- a. With one pump inoperable, restore the inoperable pump to OPERABLE status within 7 days or provide an alternate backup pump. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.
- b. With the fire suppression water system otherwise inoperable, establish a backup fire suppression water system within 24 hours.

SURVEILLANCE REQUIREMENTS

4.7.6.1.1 The fire suppression water system shall be demonstrated OPERABLE:

- a. At least once per 31 days by starting the electric motor driven fire suppression pump and operating it for at least 15 minutes on recirculation flow.
- b. At least once per 31 days by verifying that each manual valve in the flow path is in its correct position.

SURVEILLANCE REQUIREMENTS (Continued)

- c. At least once per 12 months by cycling each testable valve in the flow path through at least one complete cycle of full travel.
- d. At least once per 18 months by performing a system functional test which includes simulated automatic actuation of the system throughout its operating sequence, and:
  - 1. Verifying that each fire suppression pump develops at least 3750 gpm at a system discharge pressure of 81 psig.
  - 2. Cycling each valve in the flow path that is not testable during plant operation through at least one complete cycle of full travel, and
  - 3. Verifying that each fire suppression pump starts (sequentially) to maintain the fire suppression water system pressure greater than or equal to 65 psig.
- e. At least once per 3 years by performing a flow test of the system in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association.

4.7.6.1.2 The diesel driven fire suppression pump shall be demonstrated OPERABLE:

- a. At least once per 31 days by;
  - 1. Verifying the fuel day tank contains at least 150 gallons of fuel.
  - 2. Starting the pump from ambient conditions and operating for greater than or equal to 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-D270-75, is within the acceptable limits specified in Table 1 of ASTM-D975-77 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.

SURVEILLANCE REQUIREMENTS (Continued)

4.7.6.1.3 Each diesel driven fire pump 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 pilot cell is above the plates,
  2. The pilot cell specific gravity, corrected to 77°F and full electrolyte level, is greater than or equal to 1.200, and
  3. 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 and battery racks show no visual indication of physical damage or abnormal deterioration, and
  2. 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

**FINAL DRAFT**

#### LIMITING CONDITION FOR OPERATION

3.7.6.2 The water spray, preaction sprinkler and automatic sprinkler systems listed in Table 3.7.6.2-1 shall be OPERABLE:

APPLICABILITY: Whenever equipment protected by the water spray, preaction sprinkler and/or automatic sprinkler systems is required to be OPERABLE.

#### ACTION:

- 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 an hourly fire watch patrol.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE : REQUIREMENTS

4.7.6.2 Each of the above required water spray, preaction sprinkler and automatic sprinkler systems shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve, manual, or automatic, in the flow path is in its correct position.
- b. At least once per 12 months by cycling each valve in the flow path through at least one complete cycle of full travel.
- c. At least once per 18 months:
  1. By performing a system functional test which includes simulated automatic actuation of the system, and verifying that the automatic valves in the flow path actuate to their correct positions on a system test signal.
  2. By a visual inspection of the dry pipe spray and sprinkler headers to verify their integrity.
  3. By a visual inspection of each nozzle's spray area (except charcoal filter system spray nozzles) to verify that the spray pattern is not obstructed.
- d. The charcoal filter system spray nozzles shall be visually inspected and verified to be unobstructed each time the charcoal is changed.

Table 3.7.6.2-1

## SPRAY AND/OR SPRINKLER SYSTEMS

PANEL NO.	EQUIPMENT OR AREA PROTECTED	TYPE OF SYSTEM
1H51-P126	1M15D001B Unit 1 Annulus Exhaust Gas Treatment Plenum	Water Spray
1H51-P123	1M14D001A Unit 1 Containment Vessel and Drywell Exhaust Plenum	Water Spray
1H51-P124	1M14D001B Unit 1 Containment Vessel and Drywell Exhaust Plenum	Water Spray
1H51-P125	1M15D001A Unit 1 Annulus Exhaust Gas Treatment Plenum	Water Spray
H51-P120	M26D001B Control Room Emergency Recirculation Plenum	Water Spray
H51-P118	M26D001A Control Room Emergency Recirculation Plenum	Water Spray
---	Control Complex El. 599'-0" and Southeast Corner El. 574'-10"	Sprinkler
H51-P127	M40D001A Fuel Handling Area Exhaust Plenum	Water Spray
H51-P128	M40D001B Fuel Handling Area Exhaust Plenum	Water Spray
H51-P129	M40D001C Fuel Handling Area Exhaust Plenum	Water Spray
1H51-P116	1M38D001 Unit 1 Auxiliary Building Exhaust Plenum	Water Spray
---	Unit 1 Reactor Core Isolation Cooling	Sprinkler
1H51-P209	Unit 1 Div. 1 Cable Spreading Room	Preaction
1H51-P210	Unit 1 Div. 2 Cable Spreading Room	Preaction
---	Intermediate Building El. 599'-0"	Sprinkler
---	Intermediate Building El. 620'-6"	Sprinkler
---	Auxiliary Building El. 620'-6"	Sprinkler
2H51-P209	Unit 2 Div. 1 Cable Spreading Room	Preaction
2H51-P210	Unit 2 Div. 2 Cable Spreading Room	Preaction

PERRY - UNIT 1

3/4 7-20

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CO<sub>2</sub> SYSTEMSLIMITING CONDITION FOR OPERATION

3.7.6.3 The low pressure CO<sub>2</sub> systems listed in Table 3.7.6.3-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment protected by the above required CO<sub>2</sub> systems is required to be OPERABLE.

ACTION:

- a. With one or more of the above required CO<sub>2</sub> 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 an hourly fire watch patrol.
- b. The provisions of Specification 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.6.3.1 Each of the above required CO<sub>2</sub> systems shall be demonstrated OPERABLE 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.

4.7.6.3.2 Each of the above required low pressure CO<sub>2</sub> systems shall be demonstrated OPERABLE:

- a. At least once per 7 days by verifying the CO<sub>2</sub> storage tank capacity and pressure to be greater than:

<u>Tank</u>	<u>Capacity (lbs)</u>	<u>Pressure (psig)</u>
OP54A008	5080	275
OP54A009	724	275

- b. At least once per 18 months by verifying:

1. The system, including associated ventilation system fan trips, dampers and fire door release mechanisms, actuates, manually and automatically, upon receipt of a simulated actuation signal, (actual CO<sub>2</sub> release may be excluded from this test) and
2. Flow from each accessible nozzle during a "Puff Test."

Table 3.7.6.3-1 Low Pressure CO<sub>2</sub> Systems

<u>System Name</u>	<u>Fire Zone/Area</u>
A. Standby Diesel Generator	1DG-1a
B. HPCS Diesel Generator	1DG-1b
C. Standby Diesel Generator	1DG-1c
D. Unit #1 Control Room	1CC-5a

## PLANT SYSTEMS

### FIRE HOSE STATIONS

**FINAL DRAFT**

#### LIMITING CONDITION FOR OPERATION

3.7.6.4 The fire hose stations shown in Table 3.7.6.4-1 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 3.7.6.4-1 inoperable, provide gated wye(s) on the nearest OPERABLE hose stations(s). One outlet of the wye shall be connected to the standard length of hose provided for the hose station. The second outlet of the wye shall be connected to a length of hose sufficient to provide coverage for the area left unprotected by the inoperable hose station. Where it can be demonstrated that the physical routing of the fire hose would result in a recognizable hazard to operating technicians, plant equipment, or the hose itself, the fire hose shall be stored in a roll at the outlet of the OPERABLE hose station. Signs shall be mounted above the gated wye(s) to identify the proper hose to use. The above ACTION shall be accomplished within 1 hour if the inoperable fire hose is the primary means of fire suppression; otherwise route the additional hose within 24 hours.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

#### SURVEILLANCE REQUIREMENTS

4.7.6.4 Each of the fire hose stations shown in Table 3.7.6.4-1 shall be demonstrated OPERABLE:

- a. At least once per 31 days by a visual inspection of the fire hose stations accessible during plant operation to assure all required equipment is at the station.
- b. At least once per 18 months by:
  1. Visual inspection of the fire hose stations not accessible during plant operation to assure all required equipment is at the station.
  2. Removing the hose for inspection and re-racking, and
  3. Inspecting all gaskets and replacing any degraded gaskets in the 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 of 150 psig or at least 50 psig above the maximum fire main operating pressure, whichever is greater.



TABLE 3.7.6.4-1  
FIRE HOSE STATIONS

**FINAL DRAFT**

<u>LOCATION</u>	<u>ELEVATION</u>	<u>HOSE RACK MPL NUMBER</u>
ESW Pump House	586'6"	OP54-D566 OP54-D811
Unit #1 Reactor Building	599'9"	OP54-D730 OP54-D734 OP54-D5261
Unit #1 Reactor Building	620'6"	OP54-D731 OP54-D735
Unit #1 Reactor Building	642'0"	OP54-D736 OP54-D5262
Unit #1 Reactor Building	652'2"	OP54-D737
Unit #1 Reactor Building	664'7"	OP54-D732 OP54-D738
Unit #1 Reactor Building	689'6"	OP54-D733 OP54-D739
Fuel Handling Building	574'10"	OP54-D772 OP54-D773
Fuel Handling Building	599'0"	OP54-D774 OP54-D777
Fuel Handling Building	620'6"	OP54-D775
Auxiliary Building	568'4"	1P54-D719 1P54-D5263 1P54-D5264
Auxiliary Building	574'10"	1P54-D722
Auxiliary Building	599'0"	1P54-D715 1P54-D718 1P54-D721
Auxiliary Building	620'6"	1P54-D724 1P54-D717
Intermediate Building	574'10"	OP54-D757 OP54-D764 OP54-D793

TABLE 3.7.6.4-1 (Continued)

**FINAL DRAFT**

<u>LOCATION</u>	<u>ELEVATION</u>	<u>HOSE RACK MPL NUMBER</u>
Intermediate Building	599'0"	OP54-D756 OP54-D765 OP54-D792
Intermediate Building	620'6"	OP54-D758 OP54-D766 OP54-D794
Intermediate Building	654'6"	OP54-D759 OP54-D768 OP54-D795
Intermediate Building	682'6"	OP54-D760 OP54-D769 OP54-D796
Intermediate Building	707'6"	OP54-D770
Control Complex	574'10"	OP54-D780 OP54-D783 OP54-D788
Control Complex	599'0"	OP54-D781 OP54-D784 OP54-D789
Control Complex	620'6"	OP54-D1375 OP54-D5255 OP54-D5256 OP54-D5257 OP54-D1351 OP54-D1345
Control Complex	638'6"	OP54-D1376 OP54-D1377 OP54-D5258 OP54-D5259 OP54-D1350 OP54-D1344
Control Complex	654'6"	OP54-D1349 OP54-D1343
Control Complex	679'6"	OP54-D1378 OP54-D5260 OP54-D1348 OP54-D1342

YARD FIRE HYDRANTS AND HYDRANT HOSE HOUSES

LIMITING CONDITION FOR OPERATION

3.7.6.5 The yard fire hydrants and associated hydrant hose houses shown in Table 3.7.6.5-1 shall be OPERABLE.

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

ACTION:

- a. With one or more of the yard fire hydrants or associated hydrant hose houses shown in Table 3.7.6.5-1 inoperable, route sufficient additional lengths of fire hose of equal or greater diameter located in an adjacent OPERABLE hydrant hose house to provide service to the unprotected area(s) within 24 hours.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.6.5 Each of the yard fire hydrants and associated hydrant hose houses shown in Table 3.7.6.5-1 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, during March, April, or May and 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 of 300 psig or at least 50 psig above the maximum fire main operating pressure whichever is greater.
  2. Replacement of all degraded gaskets in couplings.
  3. Performing a flow check of each hydrant.

YARD FIRE HYDRANTS AND ASSOCIATED HYDRANT HOSE HOUSESLOCATIONHYDRANT NUMBER/HYDRANT HOSE HOUSE NUMBERS

Diesel Generator Building  
Diesel Generator Fuel Oil  
Storage Tanks  
Unit #1 Startup Transformer  
Unit #2 Startup Transformer

OP54-D544  
OP54-D543  
OP54-D548  
OP54-D539

3/4.7.7 FIRE RATED ASSEMBLIESLIMITING CONDITION FOR OPERATION

3.7.7 All fire barrier assemblies, including walls, floor/ceilings, cable tray enclosures and other fire barriers, separating safety related fire areas or separating portions of redundant systems important to safe shutdown within a fire area, and all sealing devices in fire rated assembly penetrations, including fire doors, fire dampers, cable, and piping seals, shall be OPERABLE.

APPLICABILITY: At all times.

ACTION:

- a. With one or more of the above required fire rated assemblies and/or sealing devices inoperable, within one hour establish a continuous fire watch on at least one side of the affected assembly(s) and/or sealing device(s) or verify the OPERABILITY of fire detectors on at least one side of the inoperable assembly(s) or sealing device(s) and establish an hourly fire watch patrol.
- b. The provisions of Specifications 3.0.3 and 3.0.4 are not applicable.

SURVEILLANCE REQUIREMENTS

4.7.7.1 Each of the above required fire rated assemblies and penetration sealing devices shall be verified OPERABLE at least once per 18 months by performing a visual inspection of:

- a. The exposed surfaces of each fire rated assembly.
- b. Each fire damper and associated hardware.
- c. At least 10 percent of each type of sealed penetration. If apparent changes in appearance or abnormal degradations are found, a visual inspection of an additional 10 percent of each type of sealed penetration shall be made. This inspection process shall continue until a 10 percent sample with no apparent changes in appearance or abnormal degradation is found. Samples shall be selected such that each penetration seal will be inspected at least once per 15 years.



SURVEILLANCE REQUIREMENTS (Continued)

4.7.7.2 Each of the above required fire doors shall be verified OPERABLE by inspecting the automated hold-open, release and closing mechanisms and latches at least once per 6 months, and by verifying:

- a. The OPERABILITY of the fire door supervision system for each electrically supervised fire door by performing a CHANNEL FUNCTIONAL TEST at least once per 31 days.
- b. That each locked-closed fire door is closed at least once per 7 days.
- c. That doors with automatic hold-open and release mechanisms are free of obstructions at least once per 24 hours and by performing a functional test of these mechanisms at least once per 18 months.
- d. That each unlocked fire door without electrical supervision is closed at least once per 24 hours.

BASESMONITORING INSTRUMENTATION (Continued)3/4.3.7.8 FIRE DETECTION INSTRUMENTATION

OPERABILITY of the detection instrumentation ensures that both adequate warning capability is available for prompt detection of fires and that fire suppression systems, that are actuated by fire detectors, will discharge extinguishing agent in a timely manner. Prompt detection and suppression of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility fire protection program.

Fire detectors that are used to actuate fire suppression systems represent a more critically important component of a plant's fire protection program than detectors that are installed solely for early fire warning and notification. Consequently, the minimum number of OPERABLE fire detectors must be greater.

The loss of detection capability for fire suppression systems, actuated by fire detectors, represents a significant degradation of fire protection for any area. As a result, the establishment of a fire watch patrol must be initiated at an earlier stage than would be warranted for the loss of detectors that provide only early fire warning. The establishment of frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to OPERABILITY.

3/4.3.7.9 LOOSE-PART DETECTION SYSTEM

The OPERABILITY of the loose-part detection system ensures that sufficient capability is available to detect loose metallic parts in the primary system and avoid or mitigate damage to primary system components. The allowable out-of-service times and surveillance requirements are consistent with the recommendations of Regulatory Guide 1.133, "Loose Part Detection Program for the Primary System of Light-Water-Cooled Reactors," May 1981.

3/4.3.7.10 RADIOACTIVE LIQUID EFFLUENT MONITORING INSTRUMENTATION

The radioactive liquid effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in liquid effluents during actual or potential releases of liquid effluents. The alarm/trip setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm/trip will occur prior to exceeding the limits of 10 CFR Part 20. The OPERABILITY and use of this instrumentation is consistent with the requirements of General Design Criteria 60, 63, and 64 of Appendix A to 10 CFR Part 50.

3/4.3.7.11 RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

The radioactive gaseous effluent instrumentation is provided to monitor and control, as applicable, the releases of radioactive materials in gaseous effluents during actual or potential releases of gaseous effluents. The alarm setpoints for these instruments shall be calculated in accordance with the procedures in the ODCM to ensure that the alarm will occur prior to exceeding

BASES3/4 7.6 FIRE SUPPRESSION SYSTEMS

The OPERABILITY of the fire suppression systems ensures that adequate fire suppression capability is available to confine and extinguish fires occurring in any portion of the facility where safety related equipment is located. The fire suppression system consists of the water system, spray and/or sprinkler systems, CO<sub>2</sub> systems, and fire hose stations. The collective capability of the fire suppression systems is adequate to minimize potential damage to safety related equipment and is a major element in the facility fire protection program.

In the event that portions of the fire suppression systems are inoperable, alternate backup fire fighting equipment is required to be made available in the affected areas until the inoperable equipment is restored to service. When the inoperable fire fighting equipment is intended for use as a backup means of fire suppression, a longer period of time is allowed to provide an alternate means of fire fighting than if the inoperable equipment is the primary means of fire suppression.

The surveillance requirements provide assurances that the minimum OPERABILITY requirements of the fire suppression systems are met.

In the event the fire suppression water system becomes inoperable, immediate corrective measures must be taken since this system provides the major fire suppression capability of the plant.

3/4.7.7 FIRE RATED ASSEMBLIES

The OPERABILITY of the fire barriers and barrier penetrations ensure that fire damage will be limited. These design features minimize the possibility of a single fire involving more than one fire area prior to detection and extinguishment. The fire barriers, fire barrier penetrations for conduits, cable trays and piping, fire dampers, and fire doors are periodically inspected to verify their OPERABILITY.

3/4.7.8 MAIN TURBINE BYPASS SYSTEM

The main turbine bypass system is required to be OPERABLE consistent with the assumptions of the feedwater controller failure analysis in FSAR Chapter 15.

3/4.7.9 FUEL HANDLING BUILDING

FUEL HANDLING BUILDING INTEGRITY ensures that the release of radioactive materials from the Fuel Handling Building following a fuel handling accident will be consistent with the accident analyses. The Fuel Handling Building Ventilation Exhaust System ensures that no significant fraction of the radioactive release from a postulated fuel handling accident could escape untreated.

6.0 ADMINISTRATIVE CONTROLS6.1 RESPONSIBILITY

6.1.1 The Manager, Perry Plant Operations Department, shall be responsible for overall unit operation and shall delegate in writing the succession to this responsibility during his absence.

6.1.2 The Shift Supervisor or, during his absence from the control room, a designated individual shall be responsible for the control room command function. A management directive to this effect, signed by the Vice President - Nuclear Group shall be reissued to all station personnel on an annual basis.

6.2 ORGANIZATIONCORPORATE

6.2.1 The corporate organization for unit management and technical support shall be as shown on Figure 6.2.1-1.

UNIT STAFF

6.2.2 The unit organization shall be as shown on Figure 6.2.2-1 and:

- a. Each on duty shift<sup>1</sup> shall be composed of at least the minimum shift crew composition shown in Table 6.2.2-1;
- b. At least one licensed Operator shall be in the control room when fuel is in the reactor. In addition, while the unit is in OPERATIONAL CONDITION 1, 2 or 3, at least one licensed Senior Operator shall be in the control room;
- c. A Health Physics Technician\* shall be on site when fuel is in the reactor;
- d. ALL CORE ALTERATIONS shall be observed and directly supervised by either a licensed Senior Operator or licensed Senior Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation;

- e. A site fire brigade of at least five members shall be maintained on site at all times\*. The fire brigade shall not include the Shift Supervisor, the Shift Technical Advisor, nor the two other members of the minimum shift crew necessary for safe shutdown of the unit and any personnel required for other essential functions during a fire emergency; and

\*The Health Physics Technician and fire brigade composition may be less than the minimum requirements for a period of time not to exceed 2 hours, in order to accommodate unexpected absence, provided immediate action is taken to fill the required positions.



ADMINISTRATIVE CONTROLSRESPONSIBILITIES

## 6.5.1.6 The PORC shall be responsible for:

- a. Review of all Administrative Procedures;
- b. Review of the safety evaluations for (1) proposed procedures/instructions, (2) changes to procedures/instructions, equipment, systems or facilities, and (3) tests or experiments performed under the provisions of 10 CFR 50.59 to verify that such actions do not constitute an unreviewed safety question;
- c. Review of proposed procedures/instructions and changes to procedures/instructions, equipment, systems or facilities which involve an unreviewed safety question as defined in 10 CFR 50.59;
- d. Review of proposed tests or experiments which involve an unreviewed safety question as defined in 10 CFR 50.59;
- e. Review of proposed changes to Technical Specifications or the Operating License;
- f. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Vice President - Nuclear Group and to the Nuclear Safety Review Committee;
- g. Review of all REPORTABLE EVENTS;
- h. Review of the plant Security Plan and Security Contingency Instructions and submittal of recommended changes to the Nuclear Safety Review Committee;
- i. Review of the Emergency Plan and implementing instructions and submittal of recommended changes to the Nuclear Safety Review Committee;
- j. Review of changes to the PROCESS CONTROL PROGRAM, the OFFSITE DOSE CALCULATION MANUAL, and Radwaste Treatment Systems;
- k. Review of any accidental, unplanned or uncontrolled radioactive release including the preparation of reports covering evaluation, recommendations, and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Managers, Perry Plant Departments, the Nuclear Safety Review Committee and the Vice President - Nuclear Group;
- l. Review of Unit operations to detect potential hazards to nuclear safety; and,
- m. Investigations or analysis of special subjects as requested by the Chairman of the Nuclear Safety Review Committee; and

n. Review of the Fire Protection Program and implementing instructions and submittal of recommended changes to the Nuclear Safety Review Committee.



ADMINISTRATIVE CONTROLSAUDITS (Continued)

- STET →
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix B, 10 CFR Part 50, at least once per 24 months;
  - e. The fire protection programmatic controls including the implementing procedures at least once per 24 months by qualified licensee QA personnel;
  - f. The fire protection equipment and program implementation at least once per 12 months utilizing either a qualified corporate licensee fire protection engineer(s) or an outside independent fire protection consultant. An outside independent fire protection consultant shall be utilized at least every third year;
  - g. The radiological environmental monitoring program and the results thereof at least once per 12 months;
  - h. The OFFSITE DOSE CALCULATION MANUAL and implementing procedures at least once per 24 months;
  - i. The PROCESS CONTROL PROGRAM and implementing procedures at least once per 24 months;
  - j. The performance of activities required by the Quality Assurance Program for effluent and environmental monitoring at least once per 12 months; and
  - k. Any other area of unit operation considered appropriate by the NSRC or the Vice President - Nuclear Group.

RECORDS

6.5.2.9 Records of NSRC activities shall be prepared, approved, and distributed as indicated below:

- a. Minutes of each NSRC meeting shall be prepared, approved, and forwarded to the Vice President - Nuclear Group within 14 days following each meeting.
- b. Reports of reviews encompassed by Specification 6.5.2.7 shall be prepared, approved, and forwarded to the Vice President - Nuclear Group within 14 days following completion of the review.
- c. Audit reports encompassed by Specification 6.5.2.8 shall be forwarded to the Vice President - Nuclear Group and to the management positions responsible for the areas audited within 30 days after completion of the audit by the auditing organization.

6.8 PROCEDURES/INSTRUCTIONS AND PROGRAMS

6.8.1 Written procedures/instructions shall be established, implemented, and maintained covering the activities referenced below:

- a. The applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.
- b. The applicable procedures required to implement the requirements of NUREG-0737 and supplements thereto.
- c. Security Plan implementation.
- d. Emergency Plan implementation.
- e. PROCESS CONTROL PROGRAM implementation.
- f. OFFSITE DOSE CALCULATION MANUAL implementation.
- g. ~~Quality Assurance Program for effluent and environmental monitoring.~~

\* h. FIRE PROTECTION PROGRAM implementation  
6.8.2 Each administrative procedure of specification 6.8.1, and changes thereto, shall be reviewed by the PORC and shall be approved by the Managers, Perry Plant Departments, prior to implementation. All procedures/instructions shall be reviewed periodically as set forth in administrative procedures.

6.8.3 The following programs shall be established, implemented, and maintained:

a. Primary Coolant Sources Outside Containment

A program to reduce leakage from those portions of systems outside containment that could contain highly radioactive fluids during a serious transient or accident to as low as practical levels. The systems include the HPCS, CS, RHR, RCIC, LPCS, feedwater leakage control system, and post-accident sampling systems. The program shall include the following:

1. Preventive maintenance and periodic visual inspection requirements, and
2. Integrated leak test requirements for each system at refueling cycle intervals or less.

b. In-Plant Radiation Monitoring

A program which will ensure the capability to accurately determine the airborne iodine concentration in vital areas under accident conditions. This program shall include the following:

1. Training of personnel,
2. Procedures for monitoring, and
3. Provisions for maintenance of sampling and analysis equipment.