January 31, 1978

Docket No.: 50-333

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Power Authority of the State
of New York
ATTN: Mr. George T. Berry
General Manager and
Chief Engineer
10 Columbus Circle
New York, New York 10019

Gentlemen:

The Commission has issued the enclosed Amendment No. 34 to Facility Operating License No. DPR-59 for the James A. FitzPatrick Nuclear Power Plant. The amendment implements the proposed Technical Specifications for fire protection forwarded by our letter dated November 29, 1977, and incorporates changes made as a result of your letter of December 16, 1977, and discussions with your staff.

These changes to the James A. FitzPatrick Technical Specifications are supported by the Safety Evaluation issued with our letter of November 29, 1977, except for minor changes and those changes which were made as a result of your letter of December 16, 1977, and staff discussions. All changes to our proposed Technical Specifications of November 29, 1977, are discussed herein.

(1) Specification 4.12.A.1.i has been modified to specify the same quality standards for diesel fuel of the fire suppression pumps' diesel engines as is specified for the fuel of the emergency AC power system diesel engines. These specifications are equivalent to the ASTM-D975-74 specifications and therefore are acceptable.

(2) Section 6.9.B was modified to identify, by reference, those special reports required by the proposed Technical Specifications

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when certain fire protection equipment was made or found to be inoperable. Since these modifications only modify the format of the Technical Specifications, we find this to be acceptable.

In order to provide a period of time to modify procedures to conform with the details of the enclosed interim Technical Specifications and to complete required personnel training where necessary, the amendment becomes effective 30 days after the date of issue. However, the effective date for implementing the requirement of Specification 6.4 relating to fire brigade training is March 17, 1978.

A copy of the Notice of Issuance is also enclosed.

Sincerely,

Original signed by

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Enclosures:
1. Amendment No. 34
2. Notice

cc w/enclosures: See next page

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DATE	1/27/78	1/27/78	1/30/78	1/31/78	1/31/78	

Power Authority of the State
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 34
License No. DPR-59

1. The Nuclear Regulatory Commission (the Commission) has found that:

   A. The application for amendment by the Power Authority of the State of New York (the licensee) sworn to August 12, 1977, as supplemented December 16, 1977, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-59 is hereby amended to read as follows:

   (2) Technical Specifications

   The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 34, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment becomes effective 30 days after the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Attachment:
Changes to the Technical
Specifications

Date of Issuance: January 31, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 34

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A Technical Specifications as follows:

Remove Pages	Insert Pages
iii	iii
6	6
-	244a - 244w
248	248
-	248a
252	252
253	253
254-g	254-g
258	258
259	259
260	260

Changes on the revised pages are shown by marginal lines.

TABLE OF CONTENTS (CONT'D)

surveillance tests, checks, calibrations, and examinations shall be performed within the specified surveillance intervals. These intervals may be adjusted ± 25 percent. The operating cycle interval as pertaining to instrument and electrical surveillance shall never exceed 15 months. In cases where the elapsed interval has exceeded 100 percent of the specified interval, the next surveillance interval shall commence at the end of the original specified interval.

U. Thermal Parameters

1. Minimum critical power ratio (MCPR)-Ratio of that power in a fuel assembly which is calculated to cause some point in that fuel assembly to experience *boiling* transition to the actual assembly operating power as calculated by application of the GEXL correlation (Reference NEDE-10958).

2. Total Peaking Factor - The total peaking factor shall be the ratio of local LHGR divided by the average LHGR for any specific location on a fuel rod.

3. Transition Boiling - Transition boiling means the boiling region between nucleate and film boiling. Transition boiling is the region in which both nucleate and film boiling occur intermittently with neither type being completely stable.

V. Electrically Disarmed Control Rod-

To disarm a rod drive electrically, the four amphenol type plug connectors are removed from the drive insert and withdrawal solenoids rendering the rod incapable of withdrawal. This procedure is equivalent to valving out the drive and is preferred. Electrical disarming does not eliminate position indication.

W. High Pressure Water Fire Protection System

The High Pressure Water Fire Protection System consists of: a water source and pumps; and distribution system piping with associated post indicator valves (isolation valves). Such valves include the yard hydrant curb valves and the first valve ahead of the water flow alarm device on each sprinkler or water spray subsystem.

X. Staggered Test Basis

A Staggered Test Basis shall consist of:

a. A test schedule for n systems, subsystems, trains or other designated components obtained by dividing the specified test interval into n equal subintervals.

b. The testing of one system, subsystem, train or other designated component at the beginning of each subinterval.

LIMITING CONDITIONS FOR OPERATION

3.12 FIRE PROTECTION SYSTEMS

Applicability:

Applies to the Operational Status of the Fire Protection Systems.

Objective:

To assure operability of the Fire Protection Systems.

Specification:

A. High Pressure Water Fire Protection System

1. a. **Both high pressure water fire protection pumps and associated automatic and manual initiation logic shall be operable and aligned to the high pressure water fire header.**

b. The high pressure water fire protection system shall be operable with an operable flow path capable of taking suction from the lake and transferring the water through distribution piping with operable sectionalizing control or isolation valves to the yard hydrant curb valves and the first valve ahead of the water flow alarm device on each sprinkler, hose standpipe or spray system riser required to be operable per specifications 3.12.B and 3.12.D.

SURVEILLANCE REQUIREMENTS

4.12 FIRE PROTECTION SYSTEMS

Applicability:

Applies to the Surveillance of the Fire Protection System.

Objective:

To verify the operability of the Fire Protection Systems.

Specification:

A. High Pressure Water Fire Protection System

1. High pressure water fire protection system testing:

Item		Frequency
a.	High pressure water fire protection system pressure check.	Once/week
b.	Each pump, on a STAGGERED TEST BASIS, by starting and operating it for at least 20 minutes on recirculating flow	Once/month
c.	Valve operational test	Once /12 months
d.	System flush	Once/6 months
e.	System functional test including:	Once/18 months

A. High Pressure Water Fire Protection System (Cont'd)

c. With one pump and/or associated automatic and manual initiation logic inoperable, restore the inoperable equipment to operable status within 7 days or, in lieu of any other report required by Specification 6.9.1.A, submit a Special Report to the Commission, within the next 30 days outlining the plans and procedures to be used to provide for the loss of redundancy in this system.

d. With the high pressure water fire protection system otherwise inoperable:

1. Establish a backup fire suppression water system within 24 hours, and

2. Submit a Special Report:

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

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.

A. High Pressure Water Fire Protection System (Cont'd)

Item	Frequency
1. Simulated automatic actuation throughout its operating sequence,	
2. verifying that each automatic valve in the flow path actuates to its correct position,	
3. verifying that each pump develop at least 2500gpm at a pressure of 125psig, and	
4. verifying that each pump starts sequentially (at 95 psig for the electric pump and 85 psig for the diesel driven pump) to maintain the fire suppression water system pressure.	
f. System flow test in accordance with Section 11, Chapter 5 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association	Once/3 years
g. Each valve in the flow path by verifying it is in its correct position.	Once/Month

A. High Pressure Water Fire Protection System (Cont'd)

3. If 1. above cannot be fulfilled, place the reactor in Hot Standby within six (6) hours and in Cold Shutdown within the following thirty (30) hours.

A. High Pressure Water Fire Protection System (Cont'd)

Item	Frequency
h. Fire pump diesel engine by verifying the fuel storage tank contains at least 172 gallons of fuel.	Once/Month
i. Diesel fuel from each tank obtained in accordance with ASTM-D270-65 is within the acceptable limits for quality as per the following:	Once/Quarter
Flash Point - °F	125°F min.
Pour Point - °F	10°F max.
Water & Sediment	0.50% max.
Hsh	0.5% max.
Distillation 90% Point	540 min.
Viscosity (SSU) @ 100°F	40 max.
Sulfur	1% max.
Copper Strip Corrosion	No. 3 max.
Cetane #	35 min.
j. Fire pump diesel engine by inspection during shut down in accordance with procedures prepared in conjunction with manufacturers recommendations and verifying the diesel, starts from ambient conditions on the auto start signal and operates for ≥ 20 minutes while loaded with the fire pump.	Once/18 Months

A. High Pressure Water Fire Protection System (Cont'd)

A. High Pressure Water Fire Protection System (Cont'd)

Item	Frequency
k. The fire pump diesel starting 24 volt battery bank and charger by verifying that the electrolyte level of each battery is above the plates and the overall battery voltage is ≥24 volts.	Once/Week
l. The diesel starting 24 volt battery by verifying that the specific gravity is appropriate for contingued service of the battery.	Once/Quarter
m. The diesel starter 24 volt battery by verifying that the batteries, cell plates and battery racks show no visual indication of physical damage or abnormal deterioration and the battery-to-battery and terminal connections are clean, tight, free of corrosion, and coated with anti-corrosion material.	Once/18 Months

B. Water Spray and Sprinkler Systems

1. a. The water spray and/or sprinkler in the areas listed in Table 3.12.1 shall be operable except as specified below.

   b. From the time that water spray and/or sprinkler protection for any areas listed in Table 3.12.1 is made or found inoperable, backup fire suppression equipment and a continuous fire watch will be established for the unprotected area within one hour.

2. If the water spray and/or sprinkler protection system for any area listed in Table 3.12.1 cannot be restored to an operable status within 14 days a written report to the Commission outlining the action taken, the cause of inoperability, and plans and schedule to restoring the system to an operable status shall be prepared and submitted within 30 days.

C. Carbon Dioxide Systems

1. a. The CO_2 protection for the areas listed in Table 3.12.2 shall be operable except as specified below.

   b. From the time that CO_2 protection for any of the areas listed in Table 3.12.2 is made or found to be inoperable, backup fire suppression equipment and a continuous fire watch will be established for the unprotected area(s) within 1 hour.

B. Water Spray and Sprinkler Systems

1. The water spray and/or sprinkler systems are tested as listed in Table 4.12.1.

C. Carbon Dioxide Systems

1. The CO_2 systems are tested as listed in Table 4.12.2.

C. Carbon Dioxide Systems (Cont'd)

2. If the CO_2 protection for the areas listed in Table 3.12.2 cannot be restored to an operable status within 14 days a written report to the Commission outlining the action taken, the cause of inoperability, and plans and schedule to restore the system to an operable status shall be prepared and submitted within 30 days.

D. Manual Fire Hose Stations

1. a. The manual fire hose stations listed in Table 3.12.2 shall be operable except as specified below:

b. From and after the date that any of the manual fire hose stations listed in Table 3.12.2 is made or found to be inoperable, additional hose lengths shall be added to adjacent operable manual hose stations such that the entire area of protection is maintained within one hour.

D. Manual Fire Hose Stations

1. The manual fire hose stations are inspected as listed in Table 4.12.3.

E. Fire Protection Systems Smoke and Heat Detectors

1. a. Fire protection systems smoke and/or heat detectors in each protected area as designated in Tables 3.12.1 and 3.12.2 shall be operable except as specified below:

   b. From and after the date that more than one smoke and/or heat detector in each protected area is found or made inoperable within one hour an hourly patrolling fire watch shall be established.

2. If the fire protection systems smoke and/or heat detectors in Tables 3.12.1 and 3.12.2 cannot be restored to an operable status within 14 days, a written report to the Commission outlining the action taken, the cause of inoperability and plans and schedule for restoring the detectors to an operable status shall be prepared and submitted within 30 days.

F. Fire Barrier Penetration Seals

1. a. The fire barrier penetration seals shall be functional for each protected area except as specified below:

   b. Within one hour that any of the fire barrier penetration seals for any protected area is found or made nonfunctional a continuous fire watch shall be established on one side of the fire barrier.

E. Fire Protection Systems Smoke and Heat Detectors

1. A channel functional test of smoke and heat detectors and associated circuitry shall be performed every 6 months. This test includes operability of valves associated with the detectors and verifying that the automatic valves in the flow path actuate to their correct positions.

F. Fire Barrier Penetration Seals

1. a. All fire barrier penetration seals for each protected area shall be visually inspected once/1.5 years to verify functional integrity.

   b. Any repair of fire barrier penetration seals shall be followed by a visual inspection.

3.12 and 4.12 BASES

The Fire Protection System specifications provide pre-established minimum levels of operability to assure adequate fire protection during any operating condition including a design basis accident or safe shutdown earthquake.

A. The high pressure water fire protection system is supplied by redundant vertical turbine pumps, one diesel driven and one electric motor driven, each design rated 2500 gpm at 125 psig discharge pressure. Both pumps take suction from the plant intake cooling water structures from Lake Ontario. The high pressure water fire protection header is normally maintained at 100 psig by a pressure maintenance subsystem. When pressure decreases to 95 psig the electric motor driven pump is automatically started by its initiation logic. When the high pressure water fire protection decreases to 85 psig the diesel driven pump is automatically started by its initiation logic. Each pump, together with its manual and automatic initiation logic combined makes up a redundant high pressure water fire pump.

Pressure Maintenance subsystem checks, valve position checks, system flushes and comprehensive pump and system flow and/or performance tests including logic and starting subsystem tests provide for the early detection and correction of component failures thus ensuring high levels of operability.

B. Safety related equipment areas protected by water spray or sprinklers are listed in Table 3.12.1. Whenever any of the protected areas, spray or sprinklers are inoperable continuous fire detection and backup fire protection equipment is available in the area where the water spray and/or sprinkler protection was lost.

Performance of the tests and inspections listed in Table 4.12.1 will prevent and detect nozzle blockage or breakage and verify header integrity to ensure operability.

3.12 and 4.12 BASES (continued)

C. The carbon dioxide systems provide total flood protection for eight different safety related areas of the plant from either a 3 ton or 10 ton storage unit as indicated in Table 3.12.2. Both CO_2 storage units are equipped with mechanical refrigeration units to maintain the storage tank content at 0°F with a resultant pressure of 300 psig. Automatic smoke and heat detectors are provided in the CO_2 protected areas and initiation is automatic and/or manual as indicated in Table 3.12.2. For any area in which the CO_2 protection is made or found to be inoperable, continuous fire detection is available and one or more large wheeled CO_2 fire extinguisher is also available for each area in which protection was lost.

Weekly checks of storage tank pressure and level verify proper operation of the tank refrigeration units and availability of sufficient volume of CO_2 to extinguish a fire in any of the protected areas.

Performance of the periodic tests and inspections listed in Table 4.12.2 are in accordance with NFPA-12, 1973, will verify the integrity of system nozzles and distribution headers as well as detect and remove any accumulation of rust or scale. The use of "puff test" rather than full flow tests will demonstrate proper valve operation without the attendant potential equipment and personnel hazards associated with full flow tests.

D. Manual hose stations provide backup fire protection throughout the Plant. Those hose stations that are in or near areas with safety related equipment are listed in Table 3.12.2. Hose station location and hose length selection provides the capability of reaching any fire in a safety related area with at least one effective hose stream. When any of the hose stations listed in Table 3.12.3 is inoperable, providing additional hose lengths from other operable hose stations assures maintenance of this capability. Periodic inspection and tests are in accordance with NFPA Code guidelines and assures prevention, detection and correction of hose, nozzle, valve and/or gasket damage or deterioration to maintain high levels of operability.

E. Early fire detection and fire fighting activity is essential to ensuring that any fire will result in minimum damage to safety related equipment. Since each area monitored utilizes a number of smoke and/or heat detectors when more than one detector is inoperable, early fire detection is assured by establishing a patrolling fire watch which check the area where the detectors are inoperable at least hourly.

Testing of smoke and heat detectors and associated circuitry every 6 months, in accordance with manufacturers and NFPA 72E-1974 recommendations ensures a high level of operability.

F. Fire barrier penetration seals are designed to give 3 hours or more protection and to meet the requirements of IEEE - 383, "Fire Test of Building Construction and Materials". Visual inspection and leak testing ensure that seals are intact. Leak testing with open flame or combustion generated smoke is prohibited.

TABLE 3.12.1
WATER SPRAY/SPRINKLER PROTECTED AREAS

	AREA	FIRE DETECTION	TYPE PROTECTION (3)	TYPE INITIATION
1)	West Cable Tunnel	Ionization and Electric Heat Activated Device	Water Spray	Automatic/Manual
2)	East Cable Tunnel	Ionization and Electric Heat Activated Device	Water Spray	Automatic/Manual
3)	Recirculation MG Room	Electric Heat Activated Device	Fusible Link Sprinklers	Automatic/Manual
4)	Emergency Diesels (1)	Electric Heat Activated Device	Fusible Link Sprinklers	Automatic/Manual
5)	HPCI	Electric Heat Activated Device	Water Spray	Manual
6)	RCIC	Electric Heat Activated Device	Water Spray	Manual
7)	Standby Gas Treatment Trains(2)	Electric Heat Activated Device	Water Spray	Manual
8)	Diesel Fire Pump Room	Sprinkler Flow Alarm	Fusible Link Sprinklers	Automatic

Notes for Table 3.12.1

1. Each of two (2) Emergency Diesel Generator Systems is a separate protected area, each system contains two (2) separate rooms.
2. Each of two (2) Standby Gas Treatment trains is a separate area.
3. All areas are also protected by fire hoses and portable dry chemical and/or CO_2 fire extinguishers.

TABLE 3.12.2
CARBON DIOXIDE PROTECTED AREAS (1)

	AREA	CO_2 SOURCE	FIRE DETECTION	INITIATION
1)	Cable Spreading Room	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
2)	Relay Room	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Manual
3)	Relay Room to Reactor Bldg. cable tunnel-South	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
4)	Relay Room to Reactor Bldg. cable tunnel-North	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
5)	Switchgear Room - West	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
6)	Switchgear Room - East	10 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
7)	Diesel Generator Switchgear Room - South	3 Ton Unit > 280 psig > 45% capacity	Ionization and Electric Heat Activated Device	Automatic/Manual
8)	Diesel Generator Switchgear Room - North	3 Ton Unit > 280 psig > 45% capaciaty	Ionization and Electric Heat Activated Device	Automatic/Manual

Notes for Table 3.12.2

1. All areas are also protected by fire hoses and portable dry and/or CO_2 fire extinguishers.

TABLE 3.12.3
MANUAL FIRE HOSE STATIONS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER
1	Reactor Building (Y-1) Elevation 369 South East Corner near Elevator	264
2	Reactor Building (A-2) Elevation 369 South West Corner	263
3	Reactor Building (P-6) Elevation 369 North West Corner	262
4	Reactor Building (W-6) Elevation 369 North East Corner	261
5	Reactor Building (Y-6) Elevation 344 North East Corner	260
6	Reactor Building (P-6) Elevation 344 North West Corner	259
7	Reactor Building (A-2) Elevation 344 South West Corner	258
8	Reactor Building (Y-1) Elevation 344 South East Corner	257
9	Reactor Building (Y-1) Elevation 326 South East Corner	256

TABLE 3.12.3
MANUAL FIRE HOSE STATIONS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER
10	Reactor Building (P-1) Elevation 326 South West Corner	255
11	Reactor Building (P-6) Elevation 326 North West Corner	254
12	Reactor Building (Y-6) Elevation 326 North East Corner	253
13	Reactor Building (P-6) Elevation 300 North West Corner	251
14	Reactor Building (P-1) Elevation 300 South West Corner	250
15	Reactor Building (Y-1) Elevation 300 South East Corner	249
16	Reactor Building (Y-6) Elevation 300 North East Corner	252
17	Reactor Building (D-7) Elevation 272 North East Corner	248

TABLE 3.12.3
MANUAL FIRE HOSE STATIONS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER
18	Reactor Building (Y-1) Elevation 272 South East Corner	247
19	Reactor Building (A-6) Elevation 272 North West Corner	246
20	Reactor Building (P-1) Elevation 272 South West Corner	244
21	Reactor Building (P-1) Elevation 227 West Crescent Area	243
22	Reactor Building (Y-1) Elevation 227 East Crescent Area	242
23	Standby Gas Treatment Room Elevation 272 South Wall	265
24	Auxiliary Boiler Room (D-9) Elevation 272 Near Entrance	240
25	Auxiliary Boiler Room (G-8) Elevation 272 East Wall	241
26	Administration Building (Z-10) Elevation 272 Hall Opposite Cable Room Door	269

TABLE 3.12.3
MANUAL FIRE HOSE STATIONS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER
27	Administration Building (X-11) Elevation 272 Opposite Elevator	236
28	Administration Building (S-11) Elevation 286 Hall Outside Lunch Room	238
29	Administration Building (S-11) Elevation 300 Opposite Elevator	239
30	Turbine Building (B-19) Elevation 272 Near Elect. Bay North Doors	226
31	Turbine Building (B-16) Elevation 272 Between S JAE & Recombiner	267
32	Turbine Building (Y-12) Elevation 272 Near Stairwell to E.H.C.	234
33	Turbine Building (P-13) Elevation 272 Near Elect. Bay South Doors	235
34	Turbine Building (E-13) Elevation 292 East of Panel HV-1	220
35	Turbine Building (C-12) Elevation 300 Entrance to Admin. Building	215

TABLE 3.12.3
MANUAL FIRE HOSE STATIONS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER
36	Screen House (B-24) Elevation 255 West-Near Traveling Screen A	209
37	RHR/ESW Pump Room (B-26) Elevation 255 West Side - Near Elect. Fire Pump Controller	208
38	Screen House (Bc-28) Elevation 260 North - near Circ. Water Discharge Gates	207
39	Screen House (Bh-24) Elevation 260 East near City Water Tank	211
40	Screen House (Ba-26) Elevation 272 West side between Panels HV - 11A & B	206

TABLE 4.12.1
WATER SPRAY/SPRINKLER SYSTEM TESTS

	AREA	CYCLING EACH VALVE	SPRAY NOZZLE INSPECTION	HEADER INTEGRITY INSPECTION	NOZZLE AIR FLOW TEST
1)	West Cable Tunnel	Once/ 6 Months	Once/1.5 Years	Once/1.5 Years	Once/3 Years
2)	East Cable Tunnel	Once/ 6 Months	Once/1.5 Years	Once/1.5 Years	Once/3 Years
3)	Recirculation MG Room	Once/ 6 Months	N/A	Once/1.5 Years	N/A
4)	Emergency Diesel Rooms	Once/ 6 Months	N/A	Once/1.5 Years	N/A
5)	HPCI	Once/ 6 Months	Once/1.5 Years	Once/1.5 Years	Once/3 Years
6)	RCIC	Once/ 6 Months	Once/1.5 Years	Once/1.5 Years	Once/3 Years
7)	Standby Gas Treatment Trains	Once/ 6 Months	Once/1.5 Years	Once/1.5 Years	Once/3 Years
8)	Diesel Fire Pump Room	None(1)	N/A	Once/1.5 Years	N/A

Notes for Table 4.12.1

1. Wet pipe sprinkler system

Amendment No. 34

TABLE 4.12.2

CARBON DIOXIDE SYSTEM TESTS

		INSTRUMENT CHECK	INSTRUMENT CALIBRATION	HEADER and NOZZLE INSPECTION	SIMULATED AUTOMATIC & MANUAL INITIATION (1)
1)	10 Ton CO_2 Storage Unit Level & Pressure	Once/Week	Once/Year	NA	NA
2)	3 Ton CO_2 Storage Unit Level & Pressure	Once/Week	Once/Year	NA	NA
3)	Cable Spreading Room	NA	NA	Once/1.5 Years	Once/1.5 Years
4)	Relay Room	NA	NA	Once/1.5 Years	Once/1.5 Years (2)
5)	Relay Room to Reactor Building Cable Tunnel - South	NA	NA	Once/1.5 Years	Once/1.5 Years
6)	Relay Room to Reactor Building Cable Tunnel - North	NA	NA	Once/1.5 Years	Once/1.5 Years
7)	Switchgear Room - West	NA	NA	Once/1.5 Years	Once/1.5 Years
8)	Switchgear Room - East	NA	NA	Once/1.5 Years	Once/1.5 Years
9)	Diesel Generator Switchgear Room - South	NA	NA	Once/1.5 Years	Once/1.5 Years
10)	Diesel Generator Switchgear Room - North	NA	NA	Once/1.5 Years	Once/1.5 Years

NOTES FOR TABLE 4.12.2

1) Simulated automatic and manual initiation tests will be "puff tests" and includes actuation of system valves and associated ventilation dampers.

2) Manual Test Only

TABLE 4.12.3
MANUAL FIRE HOSE STATION TESTS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER	VALVE/HOSE/ NOZZLE INSPECTION	GASKET INSPECTION/HOSE RERACK	FLOW/HYDROSTATIC TEST (1)
1	Reactor Building (Y-1) Elevation 369 South East Corner near Elevator	264	Once/Month	Once/1.5 Years	Once/3 Years
2	Reactor Building (A-2) Elevation 369 South West Corner	263	Once/Month	Once/1.5 Years	Once/3 Years
3	Reactor Building (P-6) Elevation 369 North West Corner	262	Once/Month	Once/1.5 Years	Once/3 Years
4	Reactor Building (W-6) Elevation 369 North East Corner	261	Once/Month	Once/1.5 Years	Once/3 Years
5	Reactor Building (Y-6) Elevation 344 North East Corner	260	Once/Month	Once/1.5 Years	Once/3 Years
6	Reactor Building (P-6) Elevation 344 North West Corner	259	Once/Month	Once/1.5 Years	Once/3 Years
7	Reactor Building (A-2) Elevation 344 South West Corner	258	Once/Month	Once/1.5 Years	Once/3 Years
8	Reactor Building (Y-1) Elevation 344 South East Corner	257	Once/Month	Once/1.5 Years	Once/3 Years

TABLE 4.12.3
MANUAL FIRE HOSE STATION TESTS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER	VALVE/HOSE/ NOZZLE INSPECTION	GASKET INSPECTION/HOSE RERACK	FLOW/HYDROSTATIC TEST (1)
9	Reactor Building (Y-1) Elevation 326 South East Corner	256	Once/Month	Once/1.5 Years	Once/3 Years
10	Reactor Building (P-1) Elevation 326 South West Corner	255	Once/Month	Once/1.5 Years	Once/3 Years
11	Reactor Building (P-6) Elevation 326 North West Corner	254	Once/Month	Once/1.5 Years	Once/3 Years
12	Reactor Building (Y-6) Elevation 326 North East Corner	253	Once/Month	Once/ 1.5 Years	Once/3 Years
13	Reactor Building (P-6) Elevation 300 North West Corner	251	Once/Month	Once/1.5 Years	Once/3 Years
14	Reactor Building (P-1) Elevation 300 South West Corner	250	Once/Month	Once/1.5 Years	Once/3 Years
15	Reactor Building (Y-1) Elevation 300 South East Corner	249	Once/Month	Once/1.5 Years	Once/3 Years
16	Reactor Building (Y-6) Elevation 300 North East Corner	252	Once/Month	Once/1.5 Years	Once/3 Years
17	Reactor Building (D-7) Elevation 272 North East Corner	248	Once/Month	Once/1.5 Years	Once/3 Years

TABLE 4.12.3
MANUAL FIRE HOSE STATION TESTS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER	VALVE/HOSE/ NOZZLE INSPECTION	GASKET INSPECTION/HOSE RERACK	FLOW/HYDROSTATIC TEST (1)
18	Reactor Building (Y-1) Elevation 272 South East Corner	247	Once/Month	Once/1.5 Years	Once/3 Years
19	Reactor Building (A-6) Elevation 272 North West Corner	246	Once/Month	Once/1.5 Years	Once/3 Years
20	Reactor Building (P-1) Elevation 272 South West Corner	244	Once/Month	Once/1.5 Years	Once/3 Years
21	Reactor Building (P-1) Elevation 227 West Crescent Area	243	Once/Month	Once/1.5 Years	Once/3 Years
22	Reactor Building (Y-1) Elevation 227 East Crescent Area	242	Once/Month	Once/1.5 Years	Once/3 Years
23	Standby Gast Treatment Room Elevation 272 South Wall	265	Once/Month	Once/1.5 Years	Once/3 Years
24	Auxiliary Boiler Room (D-9) Elevation 272 Near Entrance	240	Once/Month	Once/1.5 Years	Once/3 Years
25	Auxiliary Boiler Room (G-8) Elevation 272 East Wall	241	Once/Month	Once/1.5 Years	Once/3 Years
26	Administration Building (Z-10) Elevation 272 Hall Opposite Cable Room Door	269	Once/Month	Once/1.5 Years	Once/3 Years

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TABLE 4.12.3
MANUAL FIRE HOSE STATION TESTS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER	VALVE/HOSE/ NOZZLE INSPECTION	GASKET INSPECTION/HOSE RERACK	FLOW/HYDROSTATIC TEST (1)
27	Administration Bldg. (Z-11) Elevation 272 Opposite Elevator	236	Once/Month	Once/1.5 Years	Once/3 Years
28	Administration Bldg. (S-11) Elevation 286 Hall Outside Lunch Room	238	Once/Month	Once/1.5 Years	Once/3 Years
29	Administration Bldg. (S-11) Elevation 300 Opposite Elevator	239	Once/Month	Once/1.5 Years	Once/3 Years
30	Turbine Building (B-19) Elevation 272 Near Elect. Bay North Doors	226	Once/Month	Once/1.5 Years	Once/3 Years
31	Turbine Building (B-16) Elevation 272 Between S JAE & Recombiner	267	Once/Month	Once/1.5 Years	Once/3 Years
32	Turbine Building (Y-12) Elevation 272 Near Stairwell to E.H.C.	234	Once/Month	Once/1.5 Years	Once/3 Years
33	Turbine Building (P-13) Elevation 272 Near Elect. Bay South Doors	235	Once/Month	Once/1.5 Years	Once/3 Years
24	Turbine Building (E-13) Elevation 292 East of Panel HV-1	220	Once/Month	Once/1.5 Years	Once/3 Years
35	Turbine Building (C-12) Elevation 300 Entrance to Admin. Bldg.	215	Once/Month	Once/1.5 Years	Once/3 Years

TABLE 4.12.3
MANUAL FIRE HOSE STATION TESTS

STATION NUMBER	LOCATION	HOSE STATION VALVE NUMBER	VALVE/HOSE/ NOZZLE INSPECTION	GASKET INSPECTION/HOSE RERACK	FLOW/HYDROSTATIC TEST (1)
36	Screen House (B-24) Elevation 255 West - Near Traveling Screen A	209	Once/Month	Once/1.5 Years	Once/3 Years
37	RHR/ESW Pump Room Elevation 255 West Side - Near Elect. Fire Pump Controller	208	Once/Month	Once/1.5 Years	Once/3 Years
38	Screen House (Be-28) Elevation 260 North - near Circ. Water Discharge Gates	207	Once/Month	Once/1.5 Years	Once/3 Years
39	Screen House (Bh-24) Elevation 260 East near City Water Tank	211	Once/Month	Once/1.5 Years	Once/3 Years
40	Screen House (Ba-26) Elevation 272 West side Between panels HV - 11A & B	206	Once/Month	Once/1.5 Years	Once/3 Years

Notes for Table 4.12.3:

(1) Hydrostatic test of the hose at a pressure at least 50 psig greater than the maximum pressure available at the hose station.

6. In Addition to items 1, 2 & 3 above, two additional operators shall be readily available on site whenever the reactor is in other than cold shutdown. During cold shutdown, an additional operator shall be readily available on site.

7. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.

8. In the event of illness or absenteeism up to two (2) hours is allowed to restore the shift crew or fire brigade to normal complement.

9. A Fire Brigade of five (5) or more members shall be maintained on site at all times. This excludes two (2) members of the minimum shift crew necessary for safe shutdown and any personnel required for other essential functions during a fire emergency.

6.3 PLANT STAFF QUALIFICATIONS

The minimum qualifications with regard to educational background and experience for plant staff positions shown in Fig. 6.2-1 shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions; except for the Radiation and Environmental Services Superintendent who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975. Any deviations will be justified to the NRC prior to an individual's filling of one or these positions.

6.4 RETRAINING AND REPLACEMENT TRAINING

A training program shall be maintained under the direction of the Training Coordinator to assure overall proficiency of the plant staff organization. It shall consist of both retraining and replacement training and shall meet or exceed the minimum requirements of Section 5.5 of ANSI N18.1-1971.

The retraining program shall not exceed periods two years in length with a curriculum designed to meet or exceed the requalification requirements of 10 CFR 55, Appendix A. In addition fire brigade training shall meet or exceed the requirements of NFPA 27-1976, except for Fire Brigade training sessions which shall be held at least quarterly. The effective date for completion of fire brigade training is March 17, 1978.

6.5 REVIEW AND AUDIT

Two separate review groups for the review and audit of plant operations have been constituted. One of these, the Plant Operating Review Committee (PORC), is an onsite group. The other is an independent review and audit group, the offsite Safety Review Committee (SRC).

6.5.1 PLANT OPERATING REVIEW COMMITTEE (PORC)

(A) Membership

The PORC is comprised of the Resident Manager (Chairman),

Superintendent of Power (Vice Chairman), Operations Superintendent, Maintenance Superintendent, Technical Services Superintendent, Instrument and Control Superintendent, Radiological and Environmental Services

5. Review proposed changes in the Operating License and Technical Specifications.

6. Make or cause to be made periodic audits of plant operation to verify conformance with the facility operating License and other regulatory requirements.

7. Review reports and minutes of PORC.

8. Review violations of applicable statutes, codes, regulations, orders, Technical Specifications, license requirements or of internal procedures or instructions having nuclear safety significance.

9. Review NRC inspection reports, reportable occurrence submittals, and related correspondence.

10. Review aspects of plant design and operation which may result in an unacceptable environmental effect.

11. Review the Facility Fire Protection Program and implementing procedures at least once per two years.

(F) Audits

The SRC shall provide an independent review and audit function of safety-related aspects of plant activities which shall encompass:

1. The conformance of facility operation to all provisions contained within the Technical Specifications and applicable license requirements.

2. The performance of the entire facility staff relative to nuclear safety.

3. The results of all actions taken to correct anomalies occurring in the facility, equipment, structures, systems or method of operations.

4. The adequacy of the Quality Assurance Program to meet the criteria specified in 10 CFR 50, Appendix B.

5. The Emergency Plan and implementing procedures.

6. The Security Plan and implementing procedures.

7. Any other area of facility operation considered appropriate by the SRC or the General Manager.

(G) Authority

The Safety Review Committee shall be advisory to the General Manager and Chief Engineer.

(H) Records

Records will be maintained in accordance with ANSI 18.7-1972 and in accordance with the SRC Charter.

(I) Charter

Conduct of the committee will be in accordance with a charter, approved by the General Manager and Chief Engineer setting forth the mechanism for implementation of the committee's responsibilities and authority.

6.6 REPORTABLE OCCURRENCE ACTION

(A) In the event of a Reportable Occurrence, the NRC shall be notified and/or a report submitted pursuant to the requirements of Specification 6.9.

(B) Each Reportable Occurrence requiring 24 hours' notification to the NRC shall be reviewed timely by the PORC and a report submitted by the Resident Manager to the Manager-Nuclear Operations and the SRC.

6.7 SAFETY LIMIT VIOLATION

(A) If a safety limit is exceeded, the reactor shall be shut down and reactor operation shall only be resumed in accordance with the provisions of 10 CFR 50.36 (c) (1) (i).

(B) An immediate report of each safety limit violation shall be made to the NRC by the Resident Manager. The Manager-Nuclear Operations and Chairman of the SRC will be notified within 24 hours.

(C) The PORC shall prepare a complete investigative report of each safety limit violation and include appropriate analysis and evaluations of: (1) applicable circumstances preceding the occurrences, (2) effects of the occurrence upon facility components, systems or structures and (3) corrective action required to prevent recurrence. The Resident Manager shall forward this report to the Manager - Nuclear Operations, Chairman of the SRC and the NRC.

6.8 PROCEDURES

(A) Written procedures and administrative policies shall be established, implemented and maintained that meet or exceed the requirements and recommendations of Section 5 "Facility Administrative Policies and Procedures" of ANSI 18.7-1972 and Appendix A of Regulatory Guide 1.33, November 1972. In addition, procedures shall be established implemented and maintained for the Fire Protection Program.

(B) Those procedures affecting nuclear safety shall be reviewed by PORC and approved by the Resident Manager prior to implementation.

(C) Temporary changes to nuclear safety related procedures may be made provided:

1. The intent of the original procedure is not altered.

(B) SPECIAL REPORTS

1. Fifteen copies of the Evaluation Report of the results of the first five years of performance of the nondestructive inspection listed in Table 4.6-1 of Technical Specifications 4.6.F, Structural Integrity, relating to the FitzPatrick inservice inspection program shall be submitted to the NRC, Director of Operating Reactors, within three months of the completion of the fifth year of the program.

2. Special reports relating to fire protection equipment and systems shall be submitted to the NRC in accordance with Specifications 3.12.A.1.c, 3.12.A.1.d.2, 3.12.B.2, 3.12.C.2, and 3.12.E.2.

6.10 RECORD RETENTION

(A) The following records shall be retained for at least five years:

1. Records and logs of facility operation covering time intervals at each power level.
2. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
3. Reportable Occurrence Reports.
4. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
5. Records of reactor tests and experiments.
6. Records of changes made to Operating Procedures.
7. Records of radioactive shipments.
8. Records of sealed source leak tests and results.
9. Records of annual physical inventory of all source material of record.

e. The licensee shall use equipment approved by the U.S. Bureau of Mines under its appropriate Approval Schedule as set forth in Table 6.11-1. Equipment not approved under U.S. Bureau of Mines Approval Schedules shall be used only if the licensee has evaluated the equipment and can demonstrate by testing, or on the basis of reliable test information, that the material and performance characteristics of the equipment are at least equal to those afforded by U.S. Bureau of Mines approved equipment of the same type, as specified in Table 6.11-1.

f. Unless otherwise authorized by the Commission, the licensee shall not assign protection factors in excess of those specified in Table 6.11-1 in selecting and using respiratory protective equipment.

3. These specifications with respect to the provisions of 20.103 shall be superseded by adoption of proposed changes to 10 CFR 20, Section 20.103, which would make this specification unnecessary.

6.12 INDUSTRIAL SECURITY PROGRAM

(A) An industrial security program shall be maintained throughout the life of the plant in accordance with the provisions of the Plant Security Plan. Annual review of the Plant Security Plan shall be performed by the Plant Operating Review Committee and the Safety Review Committee.

6.13 EMERGENCY PLAN

(A) A Site Emergency Plan shall be maintained throughout the life of the plant in accordance with the provisions of 10 CFR 50, Appendix E.

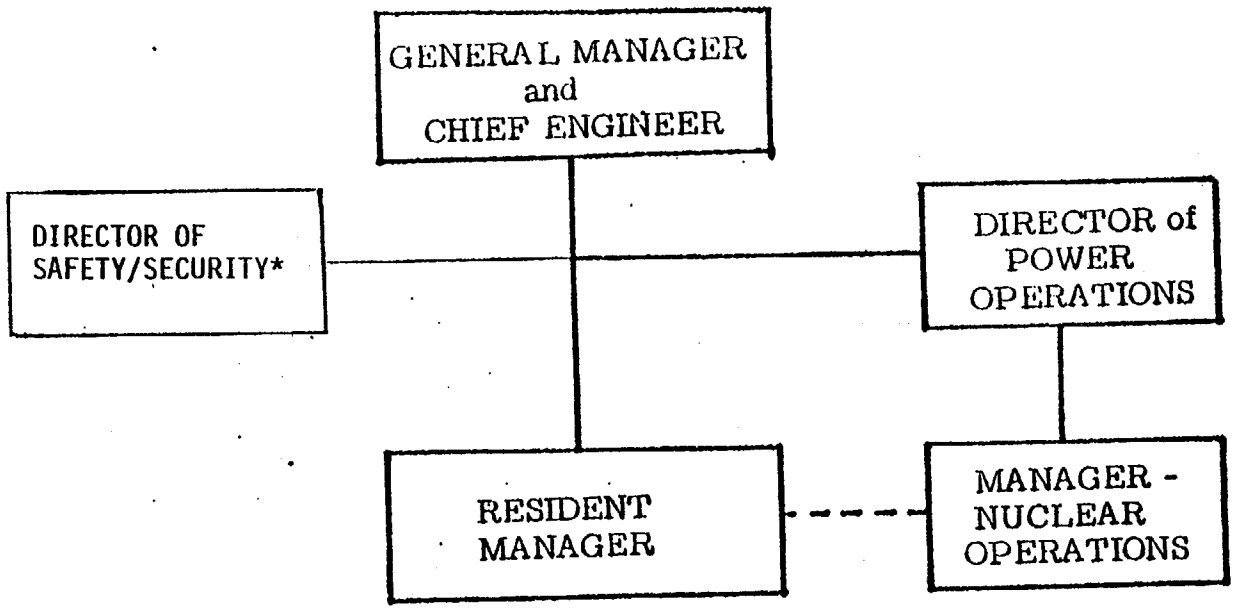
(B) Site evacuation exercises will be conducted annually utilizing applicable provisions contained within the Emergency Plan. The exercise shall involve coordination with offsite support groups and include communication checks.

(C) The Emergency Plan and implementing procedures shall be reviewed on an annual basis by the PORC and SRC.

6.14 FIRE PROTECTION PROGRAM

6.14.A An independent fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified licensee personnel or an outside fire prtoection firm.

6.14.B An inspection and audit by an outside qualified fire consultant shall be performed at intervals no greater than 3 years.



*Responsible for Power Authority
Direction of Fire Protection Program

Figure 6.1-1

Power Authority of the State of New York
James A. FitzPatrick Nuclear Power Plant
Management Organization Chart

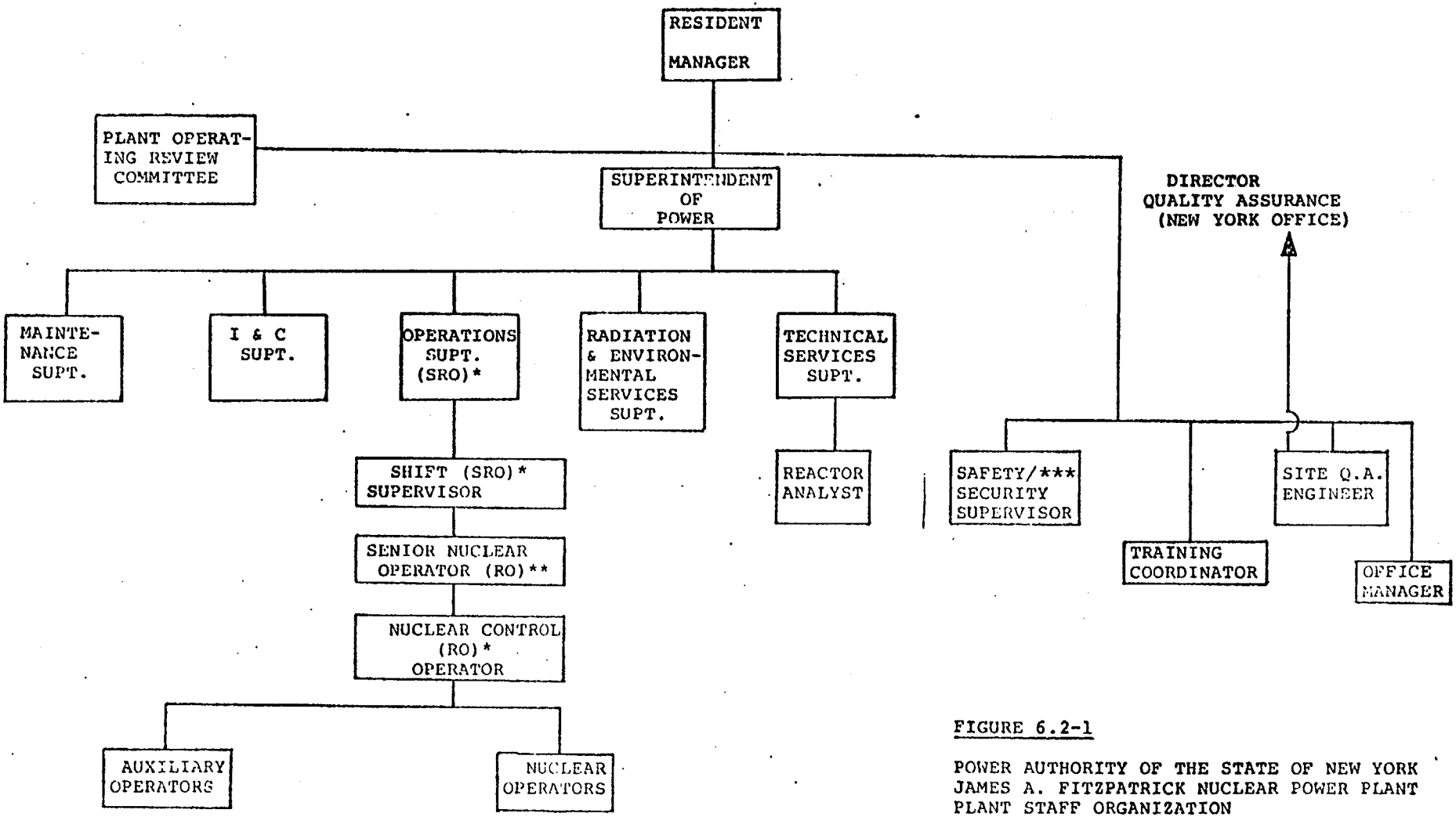


FIGURE 6.2-1

POWER AUTHORITY OF THE STATE OF NEW YORK
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
PLANT STAFF ORGANIZATION
*SRO - SENIOR REACTOR OPERATOR
**RO - REACTOR OPERATOR
*** Responsible for J. A. FitzPatrick Fire Protection Program

UNITED STATES NUCLEAR REGULATORY COMMISSION

DOCKET NO. 50-333

POWER AUTHORITY OF THE STATE OF NEW YORK

NOTICE OF ISSUANCE OF AMENDMENT TO FACILITY OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 34 to Facility Operating License No. DPR-59, issued to Power Authority of the State of New York (the licensee), which revised Technical Specifications for operation of the James A. FitzPatrick Nuclear Power Plant (the facility) located in Oswego County, New York. The amendment becomes effective 30 days after its date of issuance.

This amendment incorporates fire protection Technical Specifications on existing fire protection equipment and adds administrative controls related to fire protection at the facility. This action is being taken pending completion of the Commission's overall fire protection review of the facility.

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment submitted by letter dated August 12, 1977, as supplemented December 16, 1977, (2) the Commission's letter dated November 29, 1977, (3) Amendment No. 34 to License No. DPR-59, and (4) the Commission's related Safety Evaluation issued November 29, 1977. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, N.W., Washington, D.C. and at the Oswego County Office Building, 46 East Bridge Street, Oswego, New York. A copy of items (2) through (4) may be obtained upon request addressed to the U. S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention, Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 31st day of January 1978.

FOR THE NUCLEAR REGULATORY COMMISSION

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors