

June 3, 1977

DISTRIBUTION:

Docket File JR Buchanan
NRC PDR Gray File
L PDR 4 Extra Cys
ORB#4 Rdg IDinitz
VStello RClark
KRGoller CHeltemes
RIngram BGrimes
MFairtile
GVissing
Attorney, OELD
OI&E (5)
BJones (4)
BScharf (15)
JMcGough
BHarless
DEisenhut
ACRS (16)
OPA, Clare Miles
DRoss
TBAbernathy

Docket No.: 50-333 ✓

Niagara Mohawk Power Corporation
ATTN: Mr. Gerald K. Rhode
Vice President - Engineering
300 Erie Boulevard West
Syracuse, New York 13202

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. 22 to Facility Operating License No. DPR-59 for the FitzPatrick Nuclear Power Plant. The amendment revises the license in its entirety and includes changes to the Technical Specifications in response to your application for amendment submitted by letter dated December 20, 1976 and supplemented by letters dated March 22, 1977, April 11, and 14, 1977, and staff discussions.

The amendment permits the Power Authority of the State of New York to assume sole responsibility for the operation of the James A. FitzPatrick Nuclear Power Plant.

By letter dated December 6, 1976, you submitted an amended security plan dated October 15, 1976, for the James A. FitzPatrick Nuclear Power Plant. Our past practice of issuing approval letters for revisions to the security plan has been discontinued. The Commission has taken this opportunity to incorporate the currently approved security plan as a condition of the license. This action has been discussed with and agreed to by your staff. In the future, changes to this plan which require prior Commission approval should be identified as license amendment requests. Conversely, changes which do not require prior Commission approval but must be reported will not be the subject of license amendments themselves but rather will be incorporated in the license during some later amendment.

Lons
GD

In discussions between your staffs on May 24 and 25, 1977, it was agreed that you will submit a letter defining features of certain systems and components that will be included in the Quality Assurance Program. These systems and components are identified in our enclosed Safety Evaluation. The schedule for QA Program revisions will also be included in the letter.'

Three copies of Amendment No. 4 to Indemnity Agreement No. B-63 are enclosed. Please sign and return one copy to this office.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

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

Enclosures:

1. Amendment No. 22
2. Safety Evaluation
3. Amendment No. 4 to Indemnity Agreement No. B-63 (3 copies)
4. Notice

cc w/enclosures: See next page

ORB#4: DOR
Gvissing
5/27/77

QA
Chertres
5/27/77

C-ORB-OT: DOR
BC Times
6/1/77

OFFICE▶	ORB#4: DOR	ORB#4: DOR	ORB#4: DOR	C-ORB#4: DOR	C-ORB-OT: DOR	C-ORB
SURNAME▶	RIngram:dn	MFairtile	Joeld	RWReid	IDintz	RCClark
DATE▶	5/27/77	5/27/77	5/27/77	6/2/77	6/2/77	6/1/77

Power Authority of the
State of New York

cc w/enclosure(s):
Scott B. Lilly, General Counsel
Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Lex K. Larson, Esq.
LeBoeuf, Lamb, Leiby and MacRae
1757 N Street, N. W.
Washington, D. C. 20036

Lauman Martin, Esquire
Senior Vice President
and General Counsel
Niagara Mohawk Power Corporation
300 Erie Boulevard
Syracuse, New York 13202

Charles V. Mangan
Manager Production Plant Engineering
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Admiral Paul Early
Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Oswego County Office Building
46 E. Bridge Street
Oswego, New York 13126

Mr. Robert P. Jones, Supervisor
Town of Scriba
R. D. #4
Oswego, New York 13126

Mr. Alvin L. Krakau
Chairman, County Legislature
County Office Building
46 East Bridge Street
Oswego, New York 13126

Director, Technical Development
Programs
State of New York
Energy Office
Swan Street Building
CORE 1 - Second Floor
Empire State Plaza
Albany, New York 12223

Chief, Energy Systems
Analyses Branch (AW-459)
Office of Radiation Programs
U. S. Environmental Protection
Agency
Room 645, East Tower
401 M Street, S.W.
Washington, D.C. 20460

U. S. Environmental Protection
Agency
Region II Office
ATTN: EIS COORDINATOR
26 Federal Plaza
New York, New York 10007



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

AMENDED FACILITY OPERATING LICENSE

Amendment No. 22
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 (PASNY) and Niagara Mohawk Power Corporation (NMPC) sworn to December 17, 1976, as supplemented by letters dated March 22, 1977 and April 11 and 14, 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;
 - E. PASNY is technically and financially qualified to engage in the activities authorized by this amendment;
 - F. PASNY has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements" of the Commission's regulations;

- G. The receipt, possession, and use of source, byproduct and special nuclear material as authorized by this amendment will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including 10 CFR Sections 30.33, 40.32, 70.23, and 70.31; and
 - H. 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, Facility Operating License No. DPR-59 (previously issued to the Power Authority of the State of New York and Niagara Mohawk Power Corporation pursuant to the Atomic Safety and Licensing Board's Initial Decision and Supplemental Initial Decision dated November 12, 1973, and January 10, 1974, respectively; and the Atomic Safety and Licensing Appeal Board's Decision dated January 29, 1974) is hereby amended in its entirety to read as follows. This amended license authorizes PASNY to assume sole operating authority for the facility from NMPC.
- A. This amended license applies to the James A. FitzPatrick Nuclear Power Plant, a boiling water nuclear reactor and associated equipment (the facility), owned by the Power Authority of the State of New York (the licensee). The facility is located in Scriba, Oswego County, New York, and is described in the "Final Safety Analysis Report" as supplemented and amended, and the Environmental Report as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses PASNY:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess, use, and operate the facility at the designated location in Scriba, Oswego County, New York, in accordance with the procedures and limitations set forth in this license;
 - (2) Pursuant to the Act and 10 CFR Part 70, to receive, possess, and use, at any time, special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;

- (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use, at any time, any byproduct, source, and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (4) Pursuant to the Act and 10 CFR Part 30, to receive, possess, and use, at any time, 105 millicuries each of any byproduct material without restriction to chemical or physical form, for sample analysis or instrument calibration; and
- (5) Pursuant to the Act and 10 CFR Parts 40 and 70, to receive, possess, and use, at any time, 105 milligrams each of any source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration.

C. The license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter I: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Sections 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 2436 megawatts (thermal).

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 22, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

D. The licensee shall maintain in effect and fully implement all provisions of the NRC-approved physical security plan, including changes made pursuant to the authority of 10 CFR 50.54(p). The approved security plan consists of a document entitled "Nuclear Power Security Plan" dated October 15, 1976, transmitted by licensee letter dated December 6, 1976.

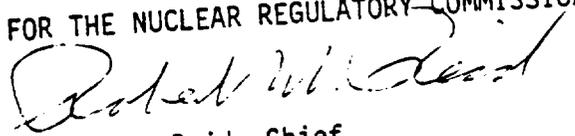
E. This license is subject to the following conditions for the protection of the environment:

- (1) The licensee will conduct transmission line construction cleanup, restoration, and maintenance in accordance with criteria set forth in the U. S. Department of the Interior Publication "Environmental Criteria for Electric Transmission Systems" - 1970.
- (2) The following conditions set forth by the State of New York in a certification dated June 1, 1973, issued to the licensee pursuant to Section 401(a)(1) of the Federal Water Pollution Control Act Amendments of 1972 (FWPCA), as modified by the Atomic Safety and Licensing Board's Initial Decision dated November 12, 1973, and the Atomic Safety and Licensing Appeal Board's Decision dated January 20, 1974, are, pursuant to Section 401(d) of the FWPCA, hereby incorporated as conditions to this license:
 - (a) The operator must sample and monitor the traveling screens, trash racks, and forebay at the facility in a manner approved by the New York State Department of Environmental Conservation and the Commission. Fish abundance data from the ongoing monitoring program required by Appendix B (the Environmental Technical Specifications) must also be submitted to the New York State Department of Environmental Conservation;
 - (b) Prior to full operation of the facility, the operator shall submit a report for the approval of the New York State Department of Environmental Conservation and the Commission describing a contingency plan for operations to be implemented in the event a serious fish kill, or other serious aquatic life incident, occurs as a result of the operation of the facility;
 - (c) The operator must collect and sample organisms at the discharge of the facility in accordance with the monitoring programs set out in the Environmental Technical Specifications. The operator must submit to the New York State Department of Environmental Conservation and to the Commission its assessment of entrainment mortality on the local area and on Lake Ontario;

- (d) A copy of all reports pertaining to the environment and relating to water quality or water pollution prepared by the operator for any Federal, State or local agency, shall also be submitted to the New York State Department of Environmental Conservation;
- (e) Intake and effluent temperatures and flow must be measured and recorded continuously;
- (f) Facility electrical output must be monitored and daily maximum and minimum recorded and daily average determined and recorded;
- (g) All oil and chemical discharges must be treated, before any dilution, in facilities approved by the New York State Department of Environmental Conservation;
- (h) Triaxial isothermal mapping by actual temperature measurement must be conducted on a frequency in such a manner and pursuant to a program approved by the New York State Department of Environmental Conservation and the Commission; and
- (i) Reports of tests and measurements pertaining to temperatures, flows, electrical output, oil and chemical discharges, and triaxial isothermal mapping as prescribed in conditions (e), (f), (g), and (h) above must be submitted monthly to the New York Department of Environmental Conservation and the Commission.

F. This amended license is effective at 11:59 p.m., EDST, June 4, 1977, and shall expire at midnight May 20, 2010.

FOR THE NUCLEAR REGULATORY COMMISSION


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

Attachments:
Changes to the Technical
Specifications

Date of Issuance: June 3, 1977

ATTACHMENT TO LICENSE AMENDMENT NO. 22

FACILITY OPERATING LICENSE NO. DPR-59

DOCKET NO. 50-333

Revise Appendix A Technical Specifications as follows:

Remove Pages

Cover page
i & ia
iii & iv
vi & vii
247 - 267
272 & 272a
273 & 273a
274 - 284

Insert Pages

Cover page
i
iii & iv
vi & vii
247-284

Revise Appendix B Environmental Specifications as follows:

Remove Pages

Cover Page
Table of Contents
(2nd pg.)
List of Figures
List of Tables
37 - 45

Insert Pages

Cover Page
Table of Contents
(2nd pg.)
List of Figures
List of Tables
37 - 44

Changes on these pages are shown by marginal lines.

APPENDIX A
TO
FACILITY OPERATING LICENSE NO. DPR-59
TECHNICAL SPECIFICATIONS AND BASES
FOR
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
POWER AUTHORITY OF THE STATE OF NEW YORK
DOCKET NO. 50-333

Date of Issuance: October 17, 1974

Amendment No. 22

TECHNICAL SPECIFICATIONSTABLE OF CONTENTS

		<u>Page</u>
1.0	Definitions	1
	<u>* SAFETY LIMITS</u>	
	<u>LIMITING SAFETY SYSTEM SETTINGS</u>	
1.1	Fuel Cladding Integrity	7
1.2	Reactor Coolant System	27
	<u>LIMITING CONDITIONS FOR OPERATION</u>	
	<u>SURVEILLANCE REQUIREMENTS</u>	
3.1	Reactor Protection System	30
3.2	Protective Instrumentation	49
	A. Primary Containment Isolation Functions	49
	B. Core and Containment Cooling Systems - Initiation and Control	49
	C. Control Rod Block Actuation	50
	D. Radiation Monitoring Systems - Isola- tion and Initiation Functions	50
	E. Drywell Leak Detection	54
	F. Surveillance Information Readouts	54
	G. Recirculation Pump Trip	54
3.3	Reactivity Control	88
	A. Reactivity Limitations	88
	B. Control Rods	91
	C. Scram Insertion Times	95
	D. Reactivity Anomalies	96
3.4	Standby Liquid Control System	105
	A. Normal Operation	105
	B. Operation With Inoperable Components	106
	C. Sodium Pentaborate Solution	107
3.5	Core and Containment Cooling Systems	112
	A. Core Spray and LPCI Systems	112
	B. Containment Cooling Mode of the RHR System	115
	C. HPCI System	117
	D. Automatic Depressurization System (ADS)	119
	E. Reactor Core Isolation Cooling (RCIC) System	121

TABLE OF CONTENTS (CONT'D)

	<u>Page</u>
D. Emergency Service Water System	D. 240
E. Intake Deicing Heaters	E. 242
5.0 Design Features	245
5.1 Site	245
5.2 Reactor	245
5.3 Reactor Pressure Vessel	245
5.4 Containment	245
5.5 Fuel Storage	245
5.6 Seismic Design	246
6.0 Administrative Controls	247
6.1 Responsibility	247
6.2 Plant Staff Organization	247
6.3 Plant Staff Qualifications	248
6.4 Retraining and Replacement Training	248
6.5 Review and Audit	249
6.5.1 Plant Operating Review Committee (PORC)	249
6.5.2 Safety Review Committee (SRC)	250
6.6 Reportable Occurrence Action	253
6.7 Safety Limit Action	253
6.8 Procedures	253
6.9 Reporting Requirements	254
6.10 Record Retention	254
6.11 Radiation and Respiratory Protection Program	255
6.12 Industrial Security Program	258
6.13 Emergency Plan	258
7.0 References	285

- Intentionally Left Blank -

JAFNPP

LIST OF TABLES (CONT'D)

<u>Table</u>	<u>Title</u>	<u>Page</u>
3.6-1	Safety Related Shock Suppressors (Snubbers)	156b
4.6-1	Comparison of the James A. FitzPatrick Nuclear Power Plant Inservice Inspection Program to ASME Inservice Inspection Code Requirements	157
3.7-1	Process Pipeline Penetrating Primary Containment	198
4.7-1	Minimum Test and Calibration Frequency for Containment Monitoring Systems	210
4.7-2	Exception to Type C Tests	211
6.10-1	Component Cyclic or Transient Limits	261
6.11-1	Protection Factors for Respirators	262

JAFNPP

LIST OF FIGURES

<u>FIGURE</u>	<u>TITLE</u>	<u>PAGE</u>
1.1-1	APRM Flow Bias Scram Relationship to Normal Operating Conditions	23
3.1.1	Manual Flow Control	47a
4.1-1	Graphical Aid in the Selection of an Adequate Interval Between Tests	48
4.2-1	Test Interval vs. Probability of System Unavailability	87
3.4-1	Sodium Pentaborate Solution Volume-Concentration Requirements	110
3.4-2	Saturation Temperature of Sodium Pentaborate Solution	111
3.5-1	Initial Core - Type 1 and 3	134
3.5-2	Initial Core - Type 2	135
3.6-1	Reactor Vessel Thermal Pressurization Limitations	163
4.6-1	Chloride Stress Corrosion Test Results at 500°F	164
6.1-1	Management Organization Chart	259
6.2-1	Plant Staff Organization	260

6.0 ADMINISTRATIVE CONTROLS

Administrative Controls are the means by which plant operations are subject to management control. Measures specified in this section provide for the assignment of responsibilities, plant organization, staffing qualifications and related requirements, review and audit mechanisms, procedural controls and reporting requirements. Each of these measures are necessary to ensure safe and efficient facility operation.

6.1 RESPONSIBILITY

The Resident Manager is responsible for safe operation of the plant. During periods when the Resident Manager is unavailable, the Superintendent of Power will assume his responsibilities. In the event both are unavailable, the Resident Manager may delegate this responsibility to other qualified supervisory personnel. The Resident Manager reports directly to the General Manager and Chief Engineer for administrative matters and functionally to the Manager - Nuclear Operations for operational related matters, as shown in Fig. 6.1-1.

6.2 PLANT STAFF ORGANIZATION

The plant staff organization is shown graphically in Fig. 6.2-1 and functions as follows:

1. A licensed senior reactor operator shall be on site at all times when there is fuel in the reactor.
2. In addition to item 1 above, a licensed reactor operator shall be in the control room at all times when there is fuel in the reactor.
3. In addition to items 1 & 2 above, a licensed reactor operator shall be readily available on site whenever the reactor is in other than cold condition.
4. Two licensed reactor operators shall be in the control room during startups and scheduled shutdowns.
5. A licensed senior reactor operator shall be responsible for all movement of new and irradiated fuel within the site boundary. A licensed reactor operator will be required to manipulate or directly supervise the manipulation of the controls of all fuel moving equipment, except the reactor building crane. All fuel movements by the reactor building crane, except new fuel movements from receipt through dry storage, shall be under the direct supervision of a licensed reactor operator. All fuel movements within the core shall be directly monitored by a member of the reactor analyst group.

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 to normal complement.

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 of 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.

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

Superintendent and Reactor Analyst. Special consultant to provide expert advice may be utilized when the nature of a particular problem dictates.

(B) Alternates

Alternate members shall be appointed in writing by the PORC Chairman to serve on a temporary basis; however, no more than two alternates shall participate in PORC activities at any one time.

(C) Meeting Frequency

Meetings will be called by the Chairman as the occasions for review or investigation arise. Meetings will be no less frequent than once a month.

(D) Quorum

The Chairman or Vice Chairman and four members, including designated alternates, shall constitute a quorum.

(E) Responsibilities

1. Review plant procedures, and changes thereto, required by Specification 6.8.
2. Review proposed tests and experiments that affect nuclear safety.
3. Review proposed changes to the Operating License and Technical Specifications.
4. Review proposed changes or modifications to plant systems or equipment that affect nuclear safety
5. Investigate violations of the Technical Specifications and prepare and forward a report covering evaluation and recommendations to prevent recurrence to the Resident Manager, who will forward the report to the Manager - Nuclear Operations and to the Chairman of the Safety Review Committee.
6. Review plant operations to detect potential safety hazards.
7. Review the Security Plan and implementing procedures annually.

8. Review the Emergency Plan and implementing procedures annually.
9. Perform special review and/or investigations at the request of the Resident Manager.
10. Review of those reportable occurrences requiring 24 hour notification to the NRC, in accordance with Specification 6.9.

(F) Authority

The PORC shall function to advise the Resident Manager on all matters related to nuclear safety and environmental operations. The PORC shall recommend approval or disapproval to the Resident Manager of those items considered in 6.5 1E (1) through (4) and determine if items considered in 6.5 1E (1) through (5) constitute unreviewed safety questions, as defined in 10 CFR 50.59.

In the event of a disagreement between the PORC and the Resident Manager, the Chairman of the SRC and the Manager - Nuclear Operations or their designated alternates shall be notified within 24 hours and written notification provided on the next business day; however, the Resident Manager shall have responsibility for resolution of such disagreements pursuant to Section 6.1.

(G) Records

Minutes of all meetings of the PORC shall be recorded and numbered. Copies will be retained in file. Copies will be forwarded to the Chairman of the SRC and the Manager - Nuclear Operations.

(H) Procedures

Conduct of the PORC and the mechanism for implementation of its responsibilities and authority are defined in the pertinent Administrative Procedures.

6.5.2 SAFETY REVIEW COMMITTEE (SRC)

(A) Membership

The SRC shall consist of not less than five members (including the Chairman) the majority of which will be off-site personnel who do not have direct line responsibility for operation of the plant. The qualifications and expertise of the SRC members shall be consistent with the requirements of ANSI N18. 7-1972, "Administrative Controls for Nuclear Power Plants" or shall be justified to the NRC.

It is recognized that expertise of the SRC members collectively may not encompass all of the areas listed in ANSI 18.7-1972. Therefore, special consultants to provide expert advice may be utilized when the nature of a particular problem dictates. The Chairman shall be appointed by the General Manager and Chief Engineer. The Vice Chairman shall be appointed by the Chairman.

(B) Alternates

Alternates shall be appointed in writing by the Chairman. No more than two alternates shall participate in SRC activities at any one time.

(C) Meeting Frequency

Meetings of the SRC will be called as the occasions for review arise. Meetings will be held at least once per six months.

(D) Quorum

Chairman or Vice Chairman and two members, including designated alternates, shall constitute a quorum.

(E) Responsibilities

1. Review proposed changes and/or modifications to procedures, equipment or systems which may involve an unreviewed safety question as defined in 10 CFR 50.59 as identified to SRC by the Resident Manager or the headquarter's Technical Staff.
2. Review proposed tests and experiments which involve an unreviewed safety question as defined in 10 CFR 50.59 as identified to SRC by the Resident Manager or the headquarter's Technical Staff.
3. Review the safety evaluations for changes and/or modifications to procedures, equipment or systems completed under the provisions of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.
4. Review the safety evaluations for test and/or experiments conducted under the provisions of 10 CFR 50.59 to verify that such actions did not constitute an unreviewed safety question.

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.

(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 operation.
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.

(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.

2. The change is approved by two members of the plant management staff, at least one of whom holds a Senior Reactor Operator's license on the unit affected.
3. The change is documented, reviewed by the PORC and approved by the Resident Manager within 14 days of implementation.

6.9 REPORTING REQUIREMENTS

(A) Routine and Reportable Occurrence Reports

Information to be reported to the Commission, in addition to the reports required by Title 10, Code of Federal Regulation shall be in accordance with the Regulatory Position in Revision 4 of Regulatory Guide 1.16, "Reporting of Operating Information- Appendix A Technical Specifications".

(B) Special Report

Fifteen copies of the Evaluation Report of the results of the first five years of performance of the nondestructive inspections listed in Table 4.6-1 of Technical Specifications 4.6.F, Structural Integrity, relating to the FitzPatrick in-service 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.

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.

(B) The following records shall be retained for the duration of the Facility Operating License:

1. Records of any drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
2. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
3. Records of facility radiation and contamination surveys.
4. Records of radiation exposure for all individuals entering radiation control areas.
5. Records of gaseous and liquid radioactive material released to the environs.
6. Records of transient or operational cycles for those facility components identified in Table 6.10-1.
7. Records of training and qualification for current members of the plant staff.
8. Records of in-service inspections performed pursuant to these Technical Specifications.
9. Records of Quality Assurance activities required by the Quality Assurance Manual.
10. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
11. Records of meetings of the PORC and the SRC.

6.11

RADIATION AND RESPIRATORY PROTECTION PROGRAM

(A) Radiation Protection Program

Procedures for personnel radiation protection shall be prepared and adhered to for all plant operations. These procedures shall be formulated to maintain radiation exposures received during operation and maintenance as far below the limits specified in 10 CFR 20 as practicable. The procedures shall include planning, preparation, and training for operation and maintenance activities. They shall also include exposure allocation, radiation and contamination control techniques, and final debriefing.

(B) Respiratory Protection Program

1. Pursuant to 10 CFR 20.103 (c) (1) and (3), allowance shall be made for the use of respiratory protective equipment in conjunction with activities authorized by the operating license for this plant in determining whether individuals in restricted areas are exposed to concentrations in excess of the limits specified in Appendix B, Table I, Column 1, of 10 CFR 20, subject to the following conditions and limitations:
 - a. The limits provided in Section 20.103 (a) and (b) shall not be exceeded.
 - b. If the radioactive material is of such form that intake through the skin or other additional route is likely, individual exposures to radioactive material shall be controlled so that the radioactive content of any critical organ from all routes of intake averaged over seven consecutive days does not exceed that which would result from inhaling such radioactive material for 40 hours at the pertinent concentration values provided in Appendix B, Table I, Column 1, of 10 CFR 20.
 - c. For radioactive materials designated "Sub" in the "Isotope" column of Appendix B, Table I, Column 1, of 10 CFR 20, the concentration value specified shall be based upon exposure to the material as an external radiation source. Individual exposures to these materials shall be accounted for as part of the limitation on individual dose in 20.101. These materials shall be subject to applicable process and other engineering controls.
2. In all operations in which adequate limitation of the inhalation of radioactive material by the use of process or other engineering controls is impracticable, the licensee shall permit an individual in a restricted area to use respiratory protective equipment to limit the inhalation of airborne radioactive material, provided:
 - a. The limits specified in paragraph 1 above are not exceeded.
 - b. Respiratory protective equipment is selected and used so that the peak concentrations of airborne radioactive material inhaled by an individual wearing the equipment do not exceed the pertinent concentration values specified in Appendix B, Table I, Column 1, of 10 CFR 20. For the purposes of this subparagraph, the concentration of radioactive material that is inhaled when respirators are worn may be determined by dividing the ambient airborne concentration by the protection factor specified in Table 6.11-1 for the respiratory protective equipment worn. If the intake of radioactivity is later determined by

other measurements to have been different than that initially estimated, the later quantity shall be used in evaluating the exposures.

- c. The licensee advises each respirator user that he may leave the area at any time for relief from respirator use in case of equipment malfunction, physical or psychological discomfort, or any other condition that might cause reduction in the protection afforded the wearer.
- d. The licensee maintains a respiratory protective program adequate to assure that the requirements above are met and incorporates practices for respiratory protection consistent with those recommended by the American National Standards Institute (ANSI 288.2-1969). Such a program shall include:
 - (1) Air sampling and other surveys sufficient to identify the hazard, to evaluate individual exposures, and to permit proper selection of respiratory protective equipment.
 - (2) Written procedures to assure proper selection, supervision, and training of personnel using such protective equipment.
 - (3) Written procedures to assure the adequate fitting of respirators, and the testing of respiratory protective equipment for operability immediately prior to use.
 - (4) Written procedures for maintenance to assure full effectiveness of respiratory protective equipment, including issuance, cleaning and decontamination, inspection, repair, and storage.
 - (5) Written operational and administrative procedures for proper use of respiratory protective equipment including provisions for planning limitations on working times as necessitated by operational conditions.
 - (6) Bioassays and/or whole body counts of individuals (and other surveys, as appropriate) to evaluate individual exposures and to assess protection actually provided.

- 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.

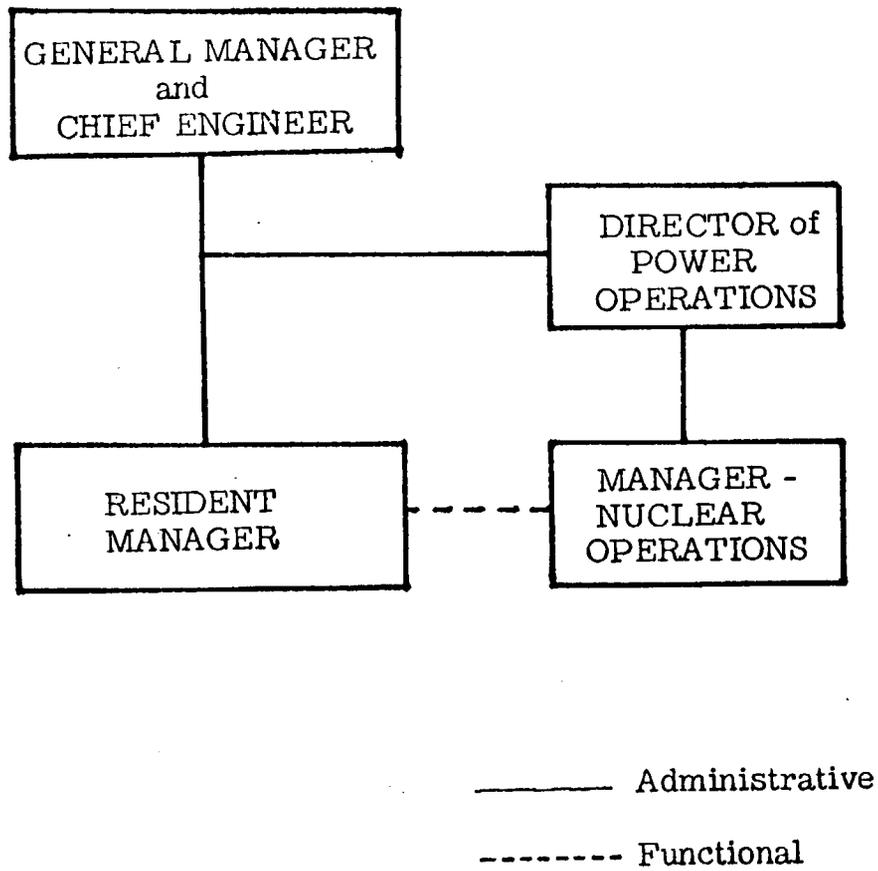
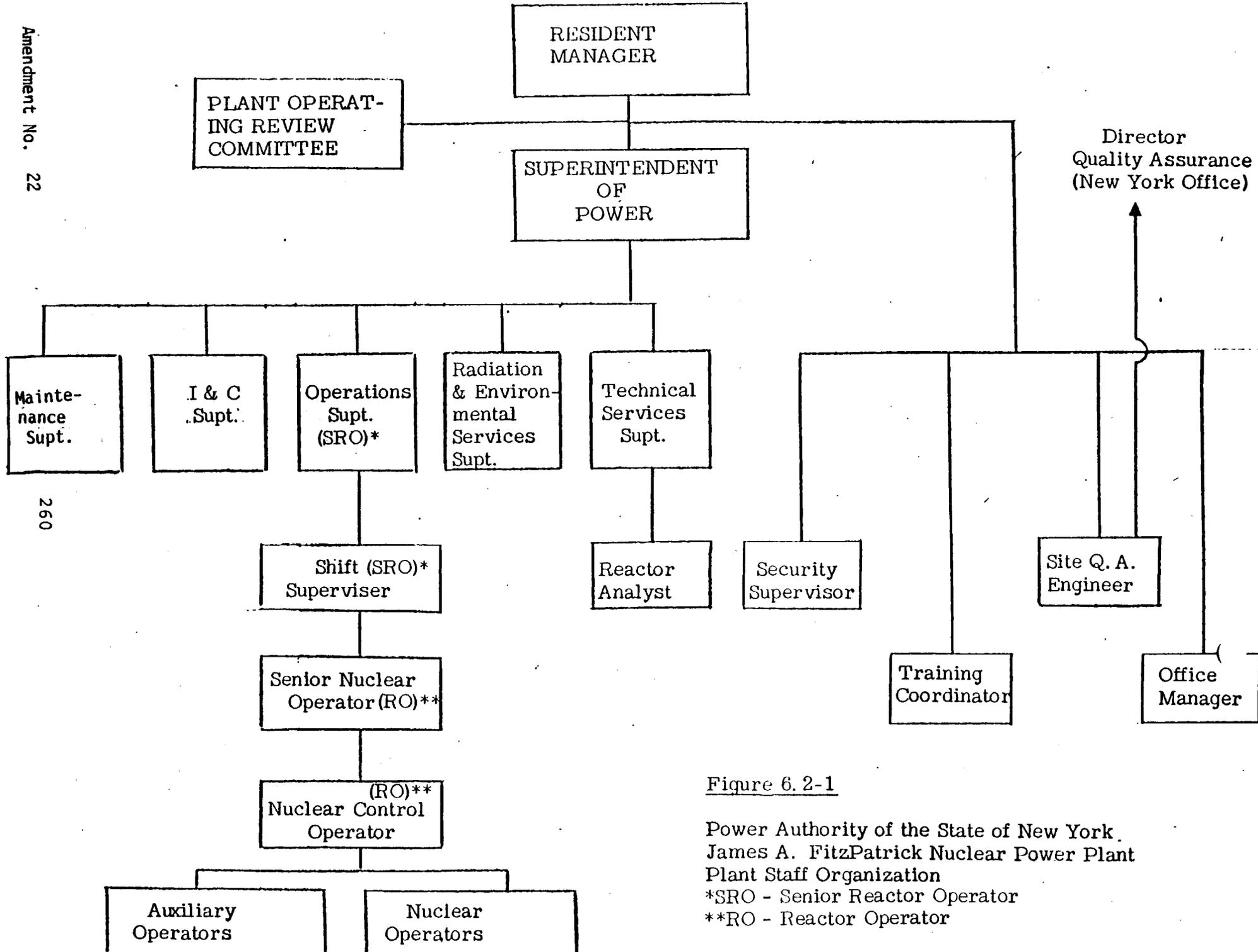


Figure 6.1-1

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



260

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

TABLE 6.10-1

COMPONENT CYCLIC OR TRANSIENT LIMITS

<u>COMPONENT</u>	<u>TRANSIENT CONDITION</u>	<u>OCCURRENCES</u>
Reactor Pressure Vessel	Normal Startup (100°F/Hr)	120
	50% Power Operation	14,600
	Rod Worth Tests	400
	Loss of Feedwater Heaters	
	Turbine Trip at 25% Power	10
	Feedwater Heater Bypass	70
	Loss of Feedwater Pumps	10
	Turbine Generator Trip	40
	Reactor Overpressure	1
	Safety Valve Blowdown	2
	All Other Scrams	147
	Improper Start of Cold Recirc. Loop	5
	Sudden Start of Cold Recirc. Loop	5
	Normal Shutdown	
	100°F/hr Cooldown (546-375°F)	
Shutdown Flooding (375-330°F)		
100°F/hr Cooldown (330-100°F)	118	

JAFNPP

TABLE 6.11-1

PROTECTION FACTORS FOR RESPIRATORS

<u>DESCRIPTION</u>	<u>MODES (1)</u>	<u>PROTECTION FACTORS (2)</u>	<u>GUIDES TO SELECTION OF EQUIPMENT</u>
		<u>PARTICULATES AND VAPORS AND CASES EXCEPT TRITIUM OXIDE (3)</u>	<u>BUREAU OF MINES APPROVAL SCHEDULES* FOR/EQUIPMENT CAPABLE OF PROVIDING AT LEAST EQUIVALENT PROTECTION FACTORS</u> *or schedule superseding for equipment of type listed
I. AIR-PURIFYING RESPIRATORS			
Facepiece, half-mask (4) (7)	NP	5	21B 30 CFR 14.4 (b) (4)
Facepiece, full (7)	NP	100	21B 30 CFR 14.4 (b) (5) : 14F 30 CFR 13
II. ATMOSPHERE-SUPPLYING RESPIRATOR			
1. Airline Respirator			
Facepiece, half-mask	CF	100	19B 30 CFR 12.2 (c) (2) Type C(i)
Facepiece, full	CF	1,000	19B 30 CFR 12.2 (c) (2) Type C(i)
Facepiece, full (7)	D	500	19B 30 CFR 12.2 (c) (2) Type C(ii)
Facepiece, full	PD	1,000	19B 30 CFR 12.2 (c) (2) Type C(iii)
Hood	CF	(5)	(6)
Suit	CF	(5)	(6)
2. Self-contained breathing apparatus (SCBA)			
Facepiece, full (7)	D	100	13E 30 CFR 11.4 (b) (2) (i)
Facepiece, full	PD	1,000	13E 30 CFR 11.4 (b) (2) (ii)
Facepiece, full	R	1,000	13E 30 CFR 11.4 (b) (1)
III. COMBINATION RESPIRATOR			
Any combination of air-purifying and atmosphere-supplying respirator		Protection factor for type and mode of operation as listed above	19B CFR 12.2 (e) or applicable schedule as listed above

(1), (2), (3), (4), (5), (6), (7) (These notes are on the following pages)

Amendment No. 22

262

PROTECTION FACTORS FOR RESPIRATORS

Notes for Table 6.11-1

1. See the following symbols:

- CF: continuous flow
 D: demand
 NP: negative pressure (i.e., negative phase during inhalation)
 PD: pressure demand (i.e., always positive pressure)
 R: recirculating (closed circuit)

2.

- a. For purposes of this specification the protection factor is a measure of the degree of protection afforded by a respirator, defined as the ratio of the concentration of airborne radio-active material outside the respiratory protective equipment to that inside the equipment (usually inside the facepiece) under conditions of use. It is applied to the ambient airborne concentration to estimate the concentration inhaled by the wearer according to the following formula:

$$\text{Concentration Inhaled} = \frac{\text{Ambient Airborne Concentration}}{\text{Protection Factor}}$$

- b. The protection factor applies:

- (1) only for trained individuals wearing properly fitted respirators used and maintained under supervision in a well-planned respiratory protective program.
- (2) for air-purifying respirators only when high efficiency (above 99.9% removal efficiency by U.S. Bureau of Mines type dioctyl phthalate (DOP) test) particulate filters and/or sorbents appropriate to the hazard are used in atmospheres not deficient in oxygen.
- (3) for atmosphere-supplying respirators only when supplied with adequate respirable air.

3. Excluding radioactive contaminants that present an absorption or submersion hazard. For tritium oxide approximately half of the intake occurs by absorption through the skin so that an overall protection factor of not more than approximately 2 is appropriate when atmosphere-supplying respirators are used to protect against tritium oxide. Air-purifying respirators are not

PROTECTION FACTORS FOR RESPIRATORS

Notes for Table 6.11-1 (Cont'd)

recommended for use against tritium oxide. See also footnote 5 below concerning supplied-air suits and hoods.

4. Under chin type only not recommended for use where it might be possible for the ambient airborne concentration to reach instantaneous values $>50X$ the pertinent values in App. B, Table 1, Column 1 of 10CFR20.
5. Appropriate protection factors must be determined taking account of the design of suit or hood and its permeability to the containment under conditions of use. No protection factor $>1,000$ shall be used except as authorized by the Commission.
6. No approval schedules currently available for this equipment. Equipment must be evaluated by testing or on basis of available test information.
7. Only for shaven faces.

NOTE 1: Protection factors for respirators, as may be approved by the U.S. Bureau of Mines according to approval schedules for respirators to protect against airborne radionuclides, may be used to the extent that they do not exceed the protection factors listed in this Table. The protection factors in this Table may not be appropriate to circumstances where chemical or other respiratory hazards exist in addition to radioactive hazards. The selection and use of respirators for such circumstances should take into account approvals of the U.S. Bureau of Mines in accordance with its applicable schedules.

NOTE 2: Radioactive containments for which the concentration values in Table 1 of this part are based on internal dose due to inhalation may, in addition, present external exposure hazards at higher concentrations. Under such circumstances, limitations on occupancy may have to be governed by external dose limits.

intentionally left blank

ENVIRONMENTAL TECHNICAL SPECIFICATIONS

APPENDIX B

TO

FACILITY OPERATING LICENSE NO. DPR-59

FOR

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-333

Date of Issuance: October 17, 1974

Amendment No. 22

CONTENTS cont'd

	<u>Page</u>
5.0 Administrative Controls	37
5.1 Responsibility	37
5.2 Organization	37
5.3 Review and Audit	37
5.4 Action to be Taken if a Limiting Condition for Operation is Exceeded	38
5.5 Procedures	38
5.6 Plant Reporting Requirements	39
5.6.1 Routine Reports	39
5.6.2 Nonroutine Reports	40
5.7 Records Retention	42

LIST OF FIGURES

	<u>Page</u>
4.1.1-1	Sampling locations and biotic groups to be sampled in the vicinity of Nine Mile Point area of Lake Ontario 29
5.2-1	Plant Organization - Environmental 43
5.2-2	Management Organization - Environmental 44

LIST OF TABLES

	<u>Page</u>
4.1.1-1	Frequency of Sampling for Ecological Studies in the Nine Mile Point Area of Lake Ontario ... 28
4.3-1	Sample Collection and Analysis NMP-JAF Site Radiological Environmental Monitoring Program 34

5.0 ADMINISTRATIVE CONTROLS

Administrative and management controls have been established to provide continuing protection to the environment through implementation of the Environmental Technical Specifications. This section describes the assignment of responsibilities, organizational structure, operations, procedures, review and audit functions and reporting specifications.

5.1 RESPONSIBILITY

5.1.1 The Environmental Technical Specifications have been prepared by the architect-engineer, environmental consultants and specialists on the plant staff organization. The Resident Manager, the Plant Operating Review Committee and headquarters' engineering and operations personnel have responsibility for review of the Environmental Technical Specifications.

5.1.2 The Resident Manager shall have direct responsibility for assuring the operation of the James A. FitzPatrick Plant is conducted in such a manner as to provide continuing protection to the environment. During periods when the Resident Manager is unavailable, he may delegate his responsibilities to the Superintendent of Power, or in his absence, to other qualified supervisory personnel.

5.1.3 Implementation of the Environmental Technical Specifications is the responsibility of the Superintendent of Power, with the assistance of the plant staff organization. The plant staff organization is shown in Figure 6.2-1 of Appendix A.

5.1.4 Environmental monitoring will be performed by site technical personnel, and when requested, by environmental consultant personnel. Engineers from the headquarters' staff will be available for assistance when required.

5.2 ORGANIZATION

Organization relative to environmental matters at the plant and headquarters' levels are presented in Figures 5.2-1 and 5.2-2 respectively.

5.3 REVIEW AND AUDIT

5.3.1 Review and audit of environmental matters shall be performed as described in Section 6.5 of Appendix A.

5.3.2 The responsibilities of the environmental review organization are:

1. Review results of environmental monitoring programs prior to submittal in each annual environmental monitoring report.

2. Review proposed changes to the Environmental Technical Specifications and the evaluated impact of the change.
3. Review proposed changes or modifications to the plant systems or equipment and the evaluated impact which would affect the evaluation of the plant's environmental impact.
4. Review the Environmental Technical Specification development with the Safety Technical Specifications to avoid conflicts and for consistency.
5. Review all proposed procedures or changes which are determined by the Resident Manager and may affect the plant's environmental impact.
6. Investigate all reported violations of Environmental Technical Specifications. Where investigation indicates, prepare and forward a report covering their evaluation and recommendation to prevent recurrence to the Resident Manager and the Chairman of the Safety Review Committee.

5.3.3 The environmental review organization will make tentative determination as to whether or not proposals submitted to the committee involve a change in the plant's environmental impact. This determination is subject to review by the Safety Review Committee.

5.4 ACTION TO BE TAKEN IF A LIMITING CONDITION FOR OPERATION IS EXCEEDED

5.4.1 Remedial action as permitted by the Technical Specifications shall be taken until the condition can be met.

5.4.2 Exceeding a limiting condition for operation shall be investigated by the Plant Operating Review Committee.

5.4.3 A licensee event report for each occurrence shall be prepared as specified in Section 5.6.2.

5.5 PROCEDURES

5.5.1 Detailed written procedures, including applicable checklists and instructions, have been prepared and are followed for all activities involved in carrying out the environmental monitoring program. Procedures include sampling, data recording and storage, instrument calibration, measurements and analyses, and actions to be taken when limits are approached or exceeded. Testing frequency of alarms, as determined from experience with similar instruments in similar environments and from manufacturer's technical manuals, have also been included.

5.5.2 Plant Operating Procedures include provisions, in addition to the procedures specified in Section 5.5.1, to ensure that all plant systems and components are operated in compliance with the limiting conditions for operations established as part of the Environmental Technical Specifications.

5.6 PLANT REPORTING REQUIREMENTS

5.6.1 Routine Reports

a. Annual Environmental Operating Report

Part A: Nonradiological Report. A report on the environmental surveillance programs for the previous 12 months of operation shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) as a separate document within 90 days after January 1 of each year. The period of the first report shall begin with the date of initial criticality. The report shall include summaries, interpretations, and statistical evaluation of the results of the nonradiological environmental surveillance activities (Section 3) and the environmental monitoring programs required by limiting conditions for operation (Section 2) for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. If harmful effects or evidence of irreversible damage are detected by the monitoring, the licensee shall provide an analysis of the problem and a proposed course of action to alleviate the problem.

Part B: Radiological Report. A report on the radiological environmental surveillance programs for the previous 12 months of operation shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) as a separate document within 90 days after January 1 of each year. The period of the first report shall begin with the date of initial criticality. The reports shall include summaries, interpretations, and statistical evaluation of the results of the radiological environmental surveillance activities for the report period, including a comparison with preoperational studies, operational controls (as appropriate), and previous environmental surveillance reports and an assessment of the observed impacts of the plant operation on the environment. The reports shall also include the results of land use censuses required by the Technical Specifications. If harmful effects or evidence of irreversible damage are detected by the monitoring, the licensee shall provide an analysis of the problem and a proposed course of action to alleviate the problem.

Results of all radiological environmental samples taken shall be summarized and tabulated on an annual basis. In the event that some results are not available within the 90 day period, the report shall be submitted noting and explaining the reasons for the missing results. The missing data shall be submitted as soon as possible in a supplementary report.

b. Radioactive Effluent Release Report

A report on the radioactive discharges released from the site during the previous 6 months of operation shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) within 60 days after January 1 and July 1 of each year. The period of the first report shall begin with the date of initial criticality. The report shall include a summary of the quantities of radioactive liquid and gaseous effluents and solid waste released from the plant as outlined in Regulatory Guide 1.21, "Measuring, Evaluating, and Reporting Radioactivity in Solid Wastes and Releases of Radioactive Materials in Liquid and Gaseous Effluents from Light-Water-Cooled Nuclear Power Plants," with data summarized on a quarterly basis following the format of Appendix B thereof.

The report shall include a summary of the meteorological conditions concurrent with the release of gaseous effluents during each quarter as outlined in Regulatory Guide 1.21, with data summarized on a quarterly basis following the format of Appendix B thereof.

5.6.2 Nonroutine Reports

a. Nonroutine Environmental Operating Reports

A report shall be submitted in the event that (a) a limiting condition for operation is exceeded (as specified in Section 2, "Limiting Conditions for Operation"), (b) a report level is reached (as specified in Section 3, "Environmental Surveillance"), or (c) an unusual or important event occurs that causes a significant environmental impact.

(1) Prompt Report. Those events requiring prompt reports shall be reported within 24 hours by telephone, telegraph, or facsimile transmission to the Director of the NRC Regional Office and within 14 days by a written report to the Director of the Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation).

(2) 30-Day Report. Those events not requiring prompt reports shall be reported within 30 days by a written report to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation).

(Written 14-day and 30-day reports and, to the extent possible, the preliminary telephone, telegraph, or facsimile reports shall (a) describe, analyze, and evaluate the occurrence, including extent and magnitude of the impact, (b) describe the cause of the occurrence, and (c) indicate the corrective action (including any significant changes made in procedures) taken to preclude repetition of the occurrence and to prevent similar occurrences involving similar components or systems.

When the significance of an unusual or apparently complete event with regard to environmental impact is not obvious or fully appreciated at the time of occurrence, the NRC shall be informed promptly of changes in the licensee's assessment of the significance of the event and a corrected report shall be submitted as expeditiously as possible.

b. Nonroutine Radiological Environmental Operating Reports

(1) Anomalous Measurement Report. If a confirmed measured level of radioactivity in any environmental medium exceeds ten times the control station value, a written report shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) within 14 days after confirmation.* This report shall include an evaluation of any release conditions, environmental factors, or other aspects necessary to explain the anomalous result.

c. Nonroutine Radioactive Effluent Reports

If the quantity of radioactive material released in effluents to unrestricted areas during any calendar quarter is such that the resulting radiation exposure exceeds one-half the design objective annual exposure derived pursuant to Appendix I to 10 CFR Part 50, the licensee shall make an investigation to identify the causes of such release and define and initiate a program of action to reduce such releases to the design objective levels. A written report of these actions shall be submitted to the Director of the NRC Regional Office (with a copy to the Director, Office of Nuclear Reactor Regulation) within 30 days from the end of the quarter during which the release occurred.

5.6.3 Changes in Environmental Technical Specifications

a. A report shall be made to the NRC prior to implementation of a change in plant design, in plant operation, or in procedures described in Section 5.5 if the change would have a significant effect on the environment. The report shall include a description and evaluation of the change and supporting information.

b. Request for changes in Environmental Technical Specifications shall be submitted to the Director, Division of Operating Reactors, for review and authorization. The request shall include an evaluation of the environmental impact of the proposed change and supporting information.

* A confirmatory reanalysis of the original, a duplicate, or a new sample may be desirable, as appropriate. The results of the confirmatory analysis shall be completed at the earliest time consistent with the analysis, but in any case, within 30 days.

5.7

RECORDS RETENTION

5.7.1 Records and logs relative to the following areas shall be made and retained for the life of the plant:

a. Records and drawings detailing plant design changes and modifications made to systems and equipment as described in Section 5.6.3.

b. Records of all data from environmental monitoring, surveillance, and special surveillance and study activities required by these Environmental Technical Specifications.

5.7.2 All other records and logs relating to the Environmental Technical Specifications shall be retained for five years following logging or recording.

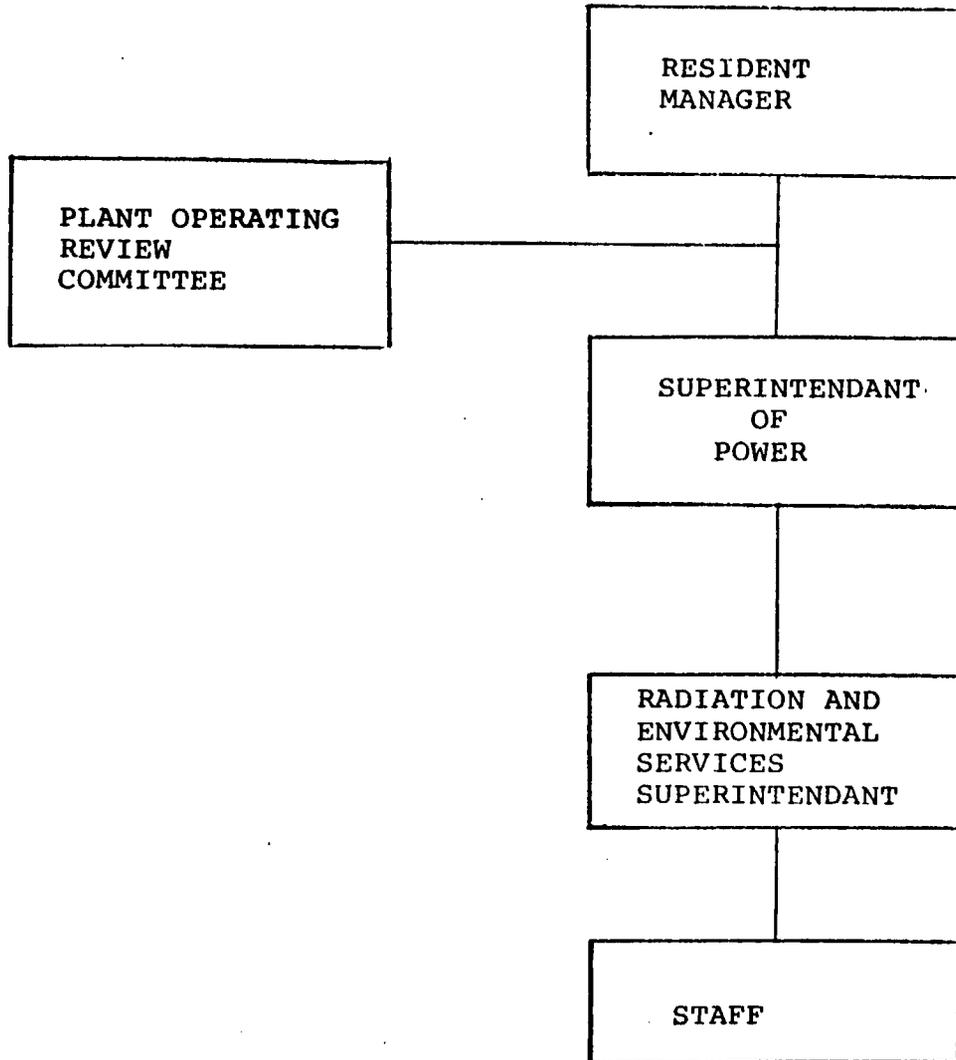


FIGURE 5.2-1
POWER AUTHORITY OF THE STATE OF NEW YORK
JAMES A. FITZPATRICK NUCLEAR POWER PLANT
PLANT ORGANIZATION - ENVIRONMENTAL

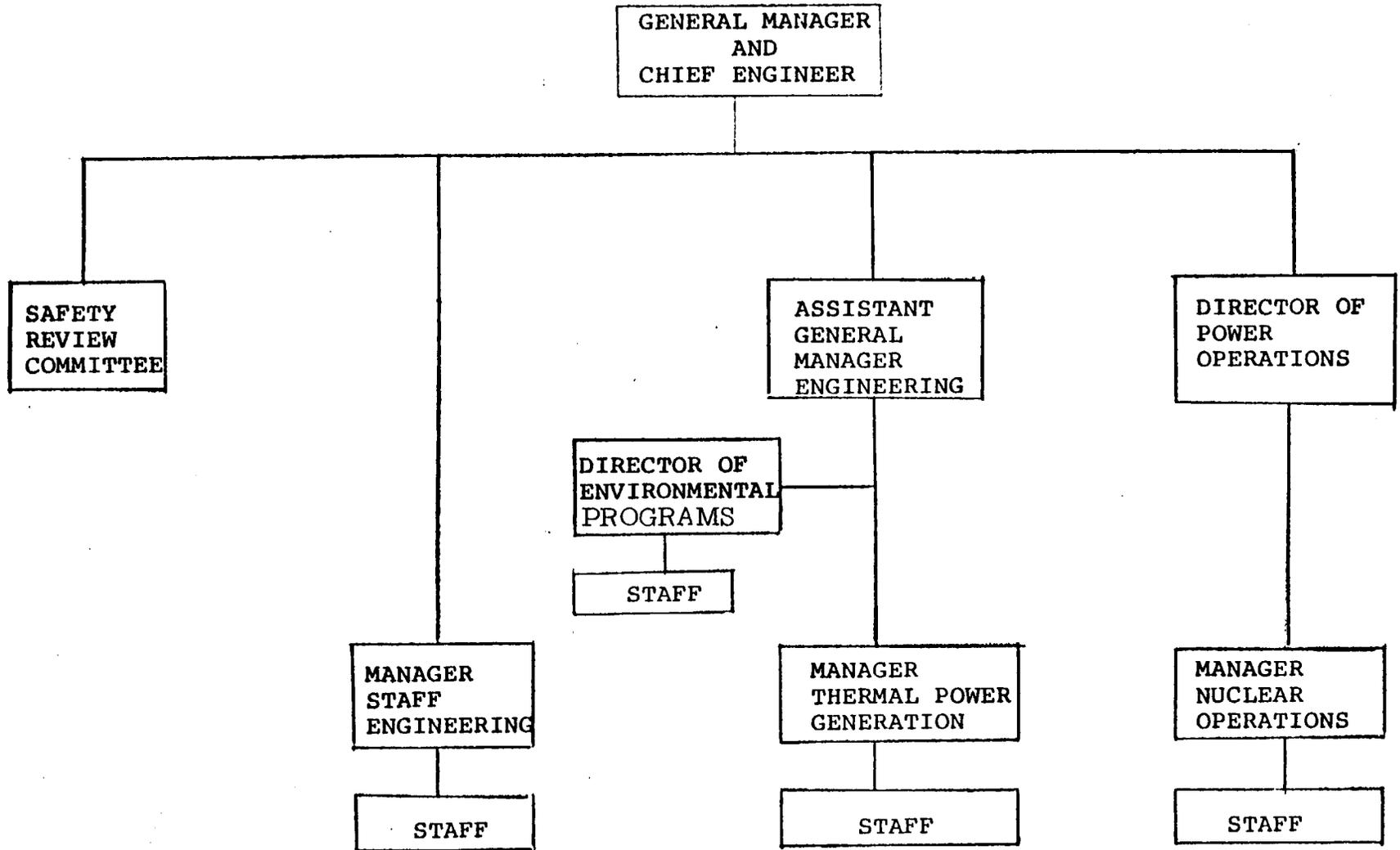


FIGURE 5.2-2
POWER AUTHORITY OF THE STATE OF NEW YORK
MANAGEMENT ORGANIZATION
ENVIRONMENTAL



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 22 TO FACILITY OPERATING LICENSE NO. DPR-59

POWER AUTHORITY OF THE STATE OF NEW YORK
AND
NIAGARA MOHAWK POWER CORPORATION

JAMES A. FITZPATRICK NUCLEAR POWER PLANT

DOCKET NO. 50-333

INTRODUCTION

By an application for amendment submitted by letter dated December 20, 1976, as supplemented by letters dated March 22, 1977, April 11 and 14, 1977, the Power Authority of the State of New York and Niagara Mohawk Power Corporation (the co-licensees), proposed changes to Facility Operating License No. DPR-59 and to the Technical Specifications appended to the license for the James A. FitzPatrick Nuclear Power Plant (the facility). The proposed amendment permits the Power Authority of the State of New York to assume sole responsibility for the operation of the facility.

BACKGROUND

On October 17, 1974, the Atomic Energy Commission issued Operating License (OL) No. DPR-59 to the co-licensees, Power Authority of the State of New York (PASNY) and Niagara Mohawk Power Corporation (NMPC). PASNY was authorized to own but not operate the facility. NMPC was authorized to operate and maintain the facility under contract to PASNY. PASNY did not have a sufficient number of trained personnel prior to the issuance of the OL to assume operating responsibility for the facility. The December 20, 1976 letter from PASNY and NMPC requested a license amendment for PASNY to assume responsibility for plant operations. NMPC submitted a letter dated December 17, 1976, consenting to the above action and requesting termination of NMPC's status as co-licensee.

EVALUATION

1. Summary

The operational takeover of the James A. FitzPatrick Nuclear Power Plant by PASNY from NMPC has evolved through a greater than two year period of developing capabilities by PASNY. PASNY was continuously involved, as owner, in plant operations. Financial support of plant operations has been the responsibility of PASNY and is unchanged. The PASNY operating staff will be, in many instances, former NMPC employees. Replacement staff members will have been trained on a one-to-one basis by incumbent NMPC employees, insuring continuity of operations. Changes have been proposed to the Security Plan, Emergency Plan, Quality Assurance Program, The Conduct of Operations, and the Administrative Controls Sections of the Appendix A and Appendix B Technical Specifications to enable the PASNY takeover. Each of the proposed changes in the operational takeover program is evaluated separately as follows:

2. Security Plan

By letter dated December 6, 1976, the co-licensees submitted a revised Security Plan dated October 15, 1976 for the FitzPatrick plant to enable the proposed operational takeover. We found the October 15, 1976 Security Plan acceptable per regulations in effect on that date.

3. Emergency Plan

The Emergency Plan submitted by the co-licensees was part of the December 20, 1976 submittal as supplemented by letter dated April 14, 1977, and is essentially the previously-approved Emergency Plan. PASNY has obtained commitments for off-site assistance from various groups and individuals for specified emergencies. In addition, during discussions between our staffs on March 31, 1977 and May 30, 1977, PASNY stated their intent to update the Emergency Plan in accordance with the guidance contained in Regulatory Guide 1.101. The December 20, 1976, Emergency Plan is therefore acceptable.

4. Quality Assurance Programs

The Quality Assurance Program submitted by the co-licensees was part of the December 20, 1976 submittal as supplemented by letters dated March 22 and April 14, 1977. The program is essentially the previously-approved Quality Assurance Program presented by PASNY on October 21, 1975, and we approved it December 12, 1975. PASNY was assigned responsibility for the QA Program upon issuance of the Operating License. NMPC, as operators, performed the quality control portions of the program. PASNY will now assume quality control responsibility.

During our current review of the PASNY Operational QA program, it was noted that the following safety-related systems and component were not specifically listed for inclusion in the program:

1. Suppression Pool Cooling and Makeup System
2. Power Conversion System
3. Diesel Generator Fuel Storage and Air Start-Up Systems
4. Fuel Assemblies

PASNY was informed of this oversight and agreed to include the Fuel Assemblies and those features of the systems listed above that are determined to be safety-related into the Operational QA Program. PASNY does have a Fuel Assemblies QA Program, but separate from the proposed program. The Quality Assurance Program is acceptable.

5. Conduct of Operations

We have reviewed Section 13, Conduct of Operations, of the December 20, 1976 PASNY submittal as supplemented by letters dated March 22, 1977, April 11, and April 14, 1977. Our review of this Section of the submittal, made use of the following criteria:

1. Comparison of the proposed organizational structure with conventional plant organizations in use at other nuclear plants.
2. Comparison of personnel qualifications with Regulatory Guide 1.8, which in turn endorses ANSI N18.1-1971.
3. Comparison of resumes of key plant personnel with ANSI N18.1, and
4. Comparison of off-site technical support with other operating plants.

a. Organizational Structure

Based on our review of Section 13.1, we find that PASNY's proposed plant staff organization, staff qualifications, and provisions for off-site technical support are acceptable.

b. Training

The Resident Manager of the facility will have overall responsibility for the selection and training of plant personnel. At the plant, the day-to-day administration of the training program will be carried out by the Training Coordinator. The replacement and retraining conforms to the requirements of 10 CFR Part 50, 10 CFR Part 55, Appendix A and follows the guidance given in ANSI N18.1. Records of all completed training will be maintained.

All station personnel not requiring NRC licenses will receive General Retraining, as applicable to their normal duties, consisting of appropriate plans and procedures, radiological health and safety, station security procedures, and the emergency plan. A program will also be conducted for refresher training of professional technical personnel, technicians and maintenance personnel. All new employees will receive training in radiation safety, emergency plan, security, quality assurance, industrial safety and job functions.

On the basis of our review, we conclude that the training programs meet our requirements and are acceptable.

c. Plant Procedures

All safety-related operating, maintenance testing and modification activities will be conducted in accordance with approved, written procedures meeting the requirements of Regulatory Guide 1.33 and ANSI N18.7-1972. Areas covered include system operating procedures, plant operating procedures, special procedures, alarm response procedures, procedures performed by nonlicensed personnel including maintenance and testing activities and administrative control procedures. The licensee's procedures meet the requirements of 10 CFR Parts 50.54(i), (j), (k), (l) and (m). Procedures addressing activities associated with safety-related structures, systems and components will be forwarded to the Plant Operating Review Committee for review and comment. Upon final approval by the Resident Manager, a procedure will become available for use. We conclude that the provisions for preparation, review, approval and use of written procedures are acceptable.

The provisions in the program for the Conduct of Operations are acceptable.

6. Changes in Technical Specifications

PASNY requested changes in the Section 6.0 Administrative Controls for the Appendix A Radiological Technical Specifications (TS) and the Section 5.0 Administrative Controls for the Appendix B Environmental TS in order to implement the operational take-over program.

a. Appendix A Technical Specifications (TS)

The changes in the Administrative Controls, Section 6.0 of the Appendix A TS involve the on-site and independent review committees. The changes occur in Sections 6.5.1 and 6.5.2 of the TS. The proposed membership, meeting frequency and procedures of the Plant Operating Review Committee (PORC), and the Safety Review Committee (SRC) were reviewed. The PORC conducts on-site review and audit of safety-related plant operations; the SRC provides off-site independent review and audit of plant operations. The changes in TS Sections 6.5.1 and 6.5.2 are acceptable.

b. Appendix B Technical Specifications

The proposed December 20, 1976 Administrative Controls, Section 5.0, of the Environmental TS have been reviewed by comparison with the TS currently in force. The licensee followed the format and requirements of Regulatory Guide 4.8. A proposed deviation from RG 4.8 in Section 5.6.1.a, Annual Environmental Operating Report, was that PASNY specified a 120 day period after January 1 of each year to file the necessary report. After discussion, PASNY agreed to a 90-day period, the same as in RG 4.8. PASNY did not submit in TS Section 5.6.1 a proposed format for radiological reports. After discussion with PASNY they agreed to submit the March 1978 report in the same format as the 1977 report. The Administrative Controls Section of the Environmental TS are acceptable.

CONCLUSIONS

We conclude, based on our review and evaluation of all the foregoing, that the Power Authority of the State of New York is qualified to assume sole operating responsibility of the James A. FitzPatrick Nuclear Power Plant. The changes described by PASNY to enable them to take over plant operations are only administrative in nature.

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Dated: June 3, 1977

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. 22 to Facility Operating License No. DPR-59, issued to Power Authority of the State of New York (PASNY) for operation of the James A. FitzPatrick Nuclear Power Plant (the facility) located in Oswego County, New York. The amendment is effective at 11:59 p.m., EDST, June 4, 1977.

The amendment is administrative in nature and permits PASNY to assume sole responsibility for the operation of the facility. Previously, Niagara Mohawk Power Corporation was licensed to operate the facility under contract to PASNY.

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

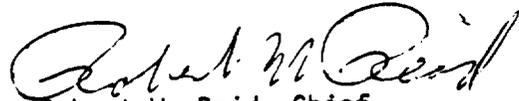
pursuant to 10 CFR §51.5(d)(4) an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with issuance of this amendment.

For further details with respect to this action, see (1) the application for amendment submitted by letter dated December 20, 1976, as supplemented March 22, 1977, April 11, and 14, 1977, (2) Amendment No. 22 to License No. DPR-59, and (3) the Commission's related Safety Evaluation. 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) and (3) 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 3rd day of June 1977.

FOR THE NUCLEAR REGULATORY COMMISSION


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