

March 8, 1978

Docket No.: 50-286

Power Authority of the State
of New York
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General Manager and
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Gentlemen:

The Commission has issued the enclosed Amendment No. 12 to Facility Operating License No. DPR-54 for Indian Point Nuclear Generating Unit No. 3. 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 March 16, 1977, as supplemented by letters dated August 9, 1977, October 27, 1977 and December 14 and 20, 1977.

The amendment permits the Power Authority of the State of New York to assume sole responsibility for the operation of Indian Point Nuclear Generating Unit No. 3. We have deleted Section 2.C.(4) of the license because those requirements have been satisfied and are no longer applicable.

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

8111050218 780308
PDR ADOCK 05000286
P PDR

Enclosures:

- 1. Amendment No. 12
- 2. Safety Evaluation
- 3. Notice

C-EEB-01: DOR
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3/1/78

C-RSLB: DOR
RClark
3/5/78

C-GB/ST-DSSEA
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as revised

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

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDED FACILITY OPERATING LICENSE

Amendment No. 12
License No. DPR-64

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 the Consolidated Edison Company of New York, Inc. (Con Ed) sworn to on March 11, 1977, as supplemented by letters dated August 9, 1977, October 27, 1977 and December 14 and 20, 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 as 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. PASNY is technically and financially qualified to engage in the activities authorized by this amendment;
 - E. PASNY has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements", of the Commission's regulations;
 - F. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;

- 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-64, (previously issued to Consolidated Edison Company of New York, Inc. and the Power Authority of the State of New York) is hereby amended in its entirety to read as follows. This amended license authorizes PASNY to assume sole operating authority for the facility from Con Ed.
- A. This amended license applies to the Indian Point Nuclear Generating Unit No. 3, a pressurized 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 Westchester County, New York, on the east bank of the Hudson River in the Village of Buchanan, and is described in the "Final Facility Description and Safety Analysis Report" as supplemented and amended, and the Environmental Report, as amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission 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 Westchester County, New York, in accordance with the procedures and limitations set forth in this amended 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 Facility Description and 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 Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components;
- (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This amended 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 2760 megawatts thermal (91% of full power operation) except

that, as required for completion of the startup testing program described in the Indian Point Unit No. 3 Final Facility Description and Safety Analysis Report, operation at reactor core power levels not in excess of 3025 megawatts thermal (100% of rated power) is authorized.

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 12, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

(3) Less Than Four Loop Operation

The licensee shall not operate the reactor at power levels above P-7 (as defined in Section 7.2 of the Final Facility Description and Safety Analysis Report) with less than four (4) reactor coolant loops in operation until safety analyses for less than four loop operation have been submitted by the licensee and approval for less than four loop operation at power levels above P-7 has been granted by the Commission and amendment of this license.

- D. The licensee shall maintain in effect and fully implement all provisions of the Commission-approved physical security plan, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). The approved security plan consists of proprietary documents titled, "Indian Point 3 Nuclear Power Plant Interim Security Plan."

Original, submitted with letter dated May 16, 1977
Revision #1, submitted with letter dated November 3, 1977
Revision #2, submitted with letter dated December 14, 1977
Revision #3, submitted with letter dated December 21, 1977
Revision #4, submitted with letter dated January 11, 1978
Revision #5, submitted by letter dated February 3, 1978
Revision #6, submitted by letter dated February 27, 1978
Revision #7, submitted by letter dated March 2, 1978

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

- (1) The conditions of this paragraph are pursuant to a stipulation dated January 13, 1975 entered into by the Hudson River Fisherman's Association, Save Our Stripers, the Atomic Energy Council of the State of New York, the Attorney General of the State of New York, Consolidated Edison Company of New York, Inc. and the Nuclear Regulatory Commission:

Operation of Indian Point Unit No. 3 (the Plant) with the once-through cooling system will be permitted during an interim period, the termination date for which will be September 15, 1980 (the September 15 date). Thereafter, except as hereinafter provided or as ordered by the Nuclear Regulatory Commission, the Plant shall be operated with an approved closed-cycle cooling system. Such interim operation is subject to the following conditions, none of which shall be interpreted to limit or to affect in any way such other conditions as are imposed by the Nuclear Regulatory Commission or any other governmental body (including, but not limited to, the State of New York) in accord with applicable law:

- (a) Interim operation shall only be permitted to the extent that the requirements of this amended license (including such technical specifications as may be imposed by the Office of Nuclear Reactor Regulation) to protect the aquatic biota of the Hudson River from any significant adverse impacts are satisfied; any necessary mitigating measures shall be promptly taken; such measures to include any authorized remedy deemed to be appropriate by the Nuclear Regulatory Commission, including an acceleration of the September 15 date to an earlier date which is deemed reasonable and warranted by the circumstances.
- (b) The September 15 date is subject to acceleration or extension depending upon whether the licensee, acting with due diligence, obtains all governmental approvals required to proceed with the construction of the closed cycle cooling system by the end of the twelfth month following submission of the evaluation required by subparagraph (g) (the twelve-month deadline). In the event all such government approvals are obtained a month or more prior to the twelve-month deadline, then the September 15 date shall be accelerated accordingly. In the event the licensee has acted with due diligence in seeking all such governmental approvals, but has not obtained such approvals by the twelve-month deadline, then the September 15 date shall be extended accordingly. If this license is issued before May 1, 1975, the twelve-month deadline shall be June 1, 1976.
- (c) If the licensee believes that the empirical data collected during this interim operation justifies an extension of the interim operation period, or other relief, he may make an application to the Nuclear Regulatory Commission. The filing of such application in and of itself shall not warrant an extension of the interim operation period.

- (d) After the commencement of construction of a closed-cycle cooling system, a request for an extension of the interim operation period will be considered by the Nuclear Regulatory Commission on the basis of a showing of good cause by the licensee which also includes a showing that the aquatic biota of the Hudson River will continue to be protected from any significant adverse impacts as a result of operation of the Plant during the period for which an extension is sought. The filing of such application in and of itself shall not warrant an extension of the interim operation period.
- (e) The September 15 date is subject to extension if the empirical data referred to in subparagraph (c) are insufficient solely because the Plant has not operated at least 40% of rated power for 45 or more full days (8:00 a.m. to 7:59 a.m.) during the period from May 15 to July 31 in each calendar year, commencing January 1, 1975. The September 15 date will be extended one year for each calendar year in which such operation is not achieved. However, no such extension shall be granted after the Plant has achieved such operation in two calendar years, and no more than two such extensions shall be granted. This subparagraph shall not bar an application for an extension under subparagraph (c) because of lack of operation. As long as an extension of the September 15 date is possible pursuant to this subparagraph, whenever the Plant operates at less than 20% of rated power for more than 12 consecutive hours during the May 15 to July 31 period, no more than three circulating water pumps shall be used.
- (f) In addition to the reporting requirements otherwise imposed by this license, the licensee is directed to file with the Commission and serve on the parties reports of his analysis of data collected during interim operation which bear on the environmental effects of once-through cooling on the aquatic biota of the Hudson River. Such reports shall be made publicly available. The first such report shall be made as soon as is feasible after the end of the 1975 striped bass spawning season but no later than July 31, 1976, and thereafter as significant new data become available.
- (g) Evaluation of the economic and environmental impact of alternative closed-cycle cooling systems shall be made by the licensee in order to determine a preferred system for installation. This evaluation shall be submitted to the Nuclear Regulatory Commission by one month following the receipt of the full-term, full-power operating license for review and approval prior to construction.

- (h) The September 15 date assumes that the installation of a closed-cycle cooling system for the Plant will require the relocation of the natural gas pipeline owned by Algonquin Gas Pipeline Company. If the final determination as to the location of the closed-cycle cooling system does not require the relocation of the pipeline, the date for the termination of the interim period of operation with the once-through cooling system will be May 1, 1980, and all dates in this condition shall be deemed changed to reflect those circumstances by substituting "May 1, 1980 (the May 1 date)" for "September 15, 1980 (the September 15 date)" and "the May 1 date" for "the September 15 date" throughout this condition and subparagraph (j)(i) of this condition shall be ineffective.
 - (i) No acceleration of the September 15 date shall be made pursuant to subparagraph (b) or (h) to the extent that such acceleration would result in the simultaneous excavation or outage for the construction of closed-cycle cooling systems for both Indian Point Units Nos. 2 and 3.
 - (j) In construing and applying this condition, the following definitions shall govern:
 - (i) "Governmental approvals" shall include, among others, approval by the Federal Power Commission of a certificate of public convenience and necessity, or amendment thereto, authorizing relocation of the natural gas pipeline owned by Algonquin Gas Pipeline Company and crossing the Plant site in order to permit excavation for a cooling tower adjacent to the Plant;
 - (ii) "Licensee" shall include Applicant or any successor to its interest in the license to operate the Plant or any joint holder of the license to operate the Plant.
- (2) A plan-of-action of operating procedures and design modifications of the once-through cooling system for Indian Point Unit No. 3 shall be developed by the licensee in order to take the corrective actions to minimize detrimental effects on aquatic biota in the Hudson River to a practicable minimum during the interim period prior to installation of a closed-cycle cooling system. The plan shall include means of reducing thermal shock, impingement on the intake structure, entrainment of fish eggs, larvae, and plankton, chemical and thermal discharges, and loss of dissolved oxygen below 5.0 ppm; and shall include other mitigating measures available. The plan shall be submitted to the Nuclear Regulatory Commission one month after receipt of the full-term operating

license for Unit No. 3, and upon approval by the Commission, the plan shall be implemented so as to eliminate or substantially reduce such adverse effects as are revealed by the monitoring and environmental surveillance and special studies program presented in the Environmental Technical Specifications for once-through cooling.

- F. This amended license is also subject to appropriate conditions imposed by the New York State Department of Environmental Conservation in its letter of May 2, 1975, to Consolidated Edison Company of New York, Inc., granting a Section 401 certification under the Federal Water Pollution Control Act Amendments of 1972.
- G. This amended license is effective at 12:01 a.m., March 10, 1978, and shall expire at midnight, August 13, 2009.

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: March 8, 1978

ATTACHMENT TO LICENSE AMENDMENT NO. 12

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages

iii

6-1 - 6-22

Insert Pages

iii

6-1 - 6-20

Revise Appendix B as follow:

Remove Pages

5.1-1 - 5.6-8

Insert Pages

5.1 - 5.12

Changes on the revised pages are shown by marginal lines.

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6.0 ADMINISTRATIVE CONTROLS

6.1 RESPONSIBILITY

6.1.1 The Resident Manager shall be responsible for overall facility operation. 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.

6.2 ORGANIZATION

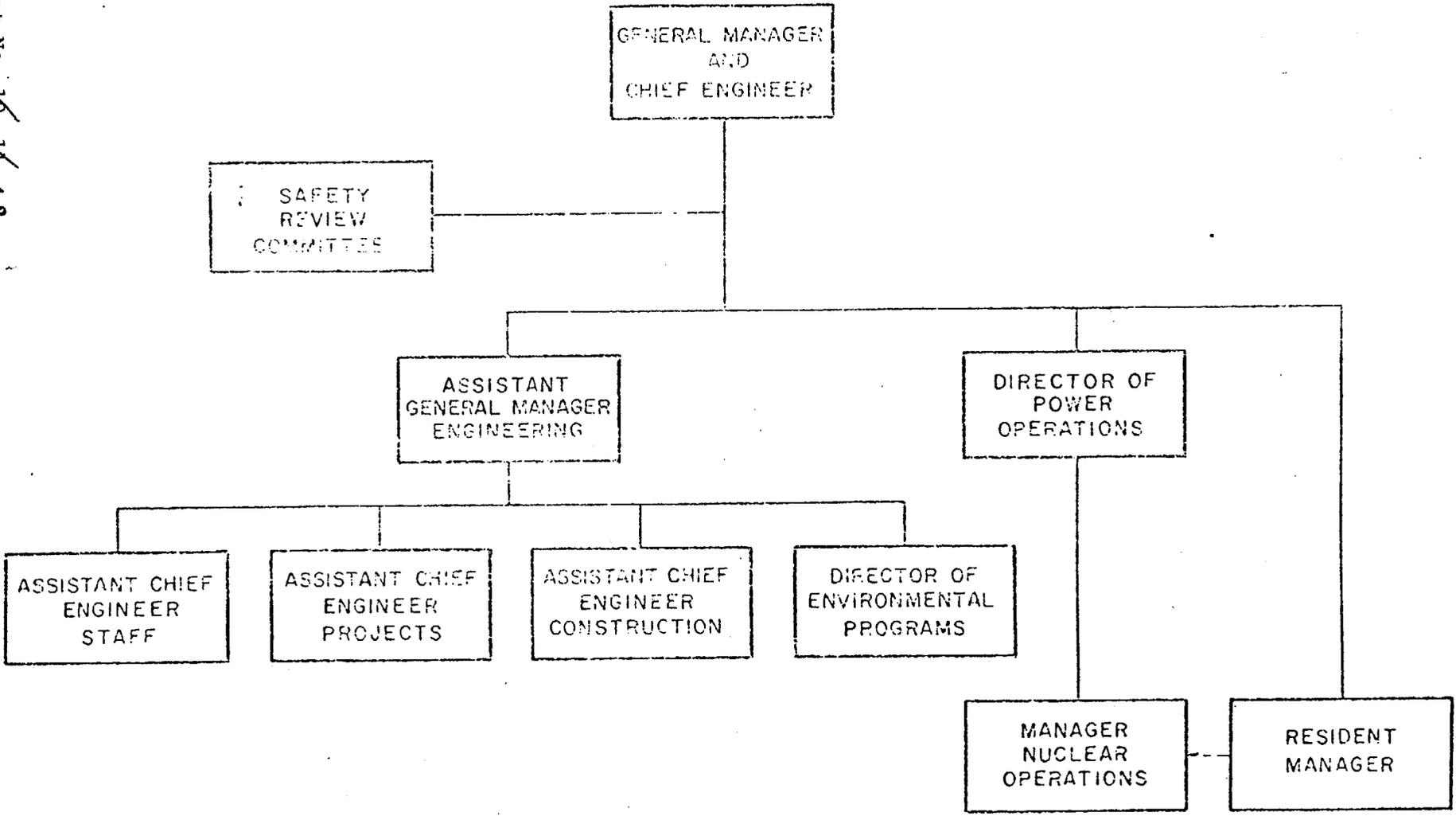
OFFSITE

6.2.1 The offsite organization for plant management and technical support shall be as shown on Figure 6.2-1.

PLANT STAFF

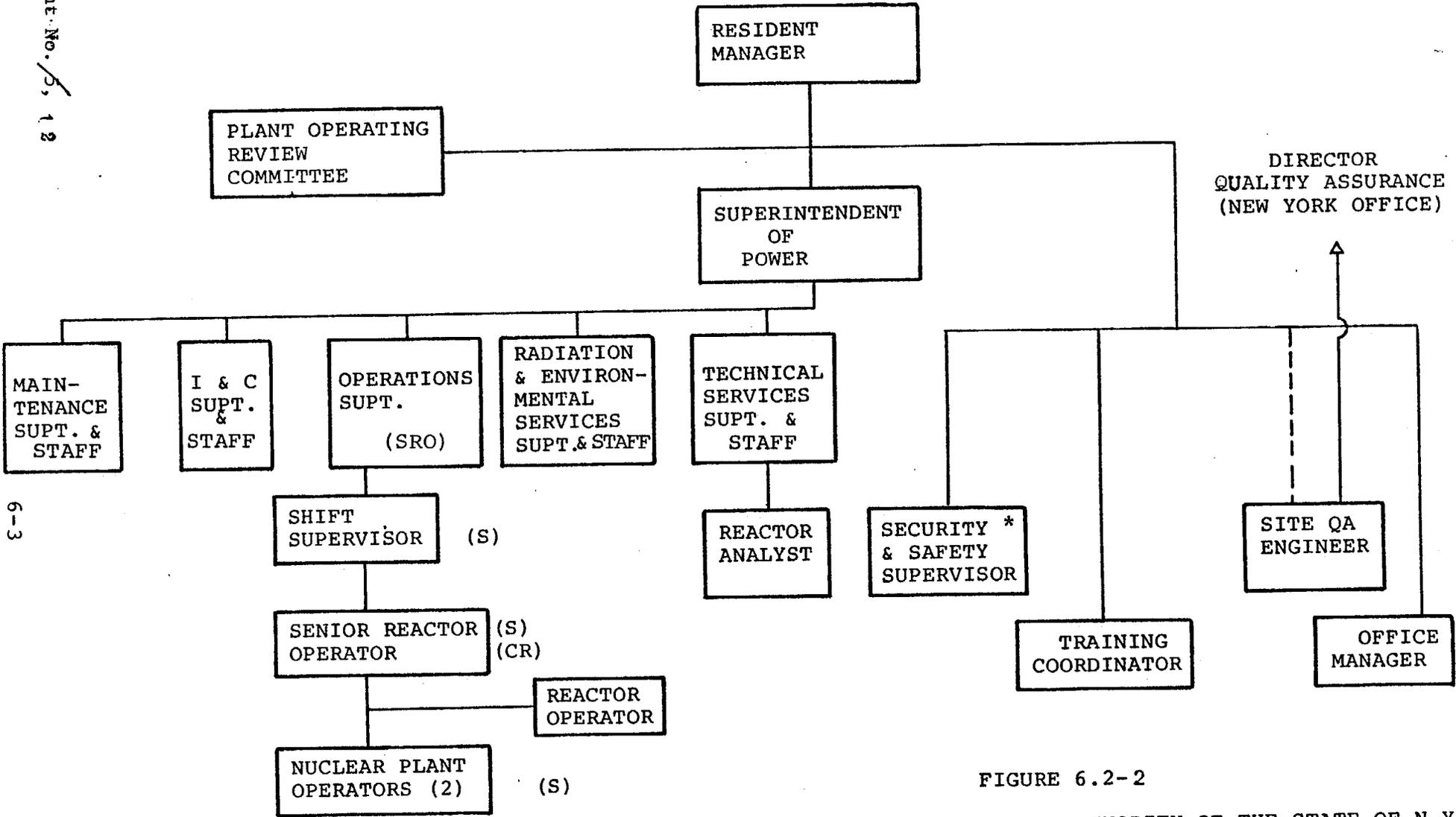
6.2.2 The plant organization shall be as shown on Figure 6.2-2 and:

- a. Each on duty shift shall be composed of at least the minimum shift crew composition shown in Table 6.2-1.
- b. At least one Licensed Operator shall be in the control room when fuel is in the reactor.
- c. At least two licensed Operators shall be present in the control room during reactor start-up, scheduled reactor shutdown and during recovery from reactor trips.
- d. An individual qualified in radiation protection procedures shall be on site when fuel is in the reactor.
- e. ALL CORE ALTERATIONS shall be directly supervised by either a licensed Senior Reactor Operator or Senior Reactor Operator Limited to Fuel Handling who has no other concurrent responsibilities during this operation.
- f. A Fire Brigade of at least five members shall be maintained on site at all times. This excludes four members of the minimum shift crew necessary for safe shutdown of the plant and any personnel required for other essential functions during a fire emergency. During periods of cold shutdown the Fire Brigade will exclude two members of the minimum shift crew.



———— ADMINISTRATIVE
- - - - - FUNCTIONAL

FIGURE 6.2-1
MANAGEMENT ORGANIZATION CHART
INDIAN POINT 3 NUCLEAR POWER PLANT



6-3

(S) Continuous Coverage
 (CR) Control Room
 (SRO) Senior Reactor Operator

FIGURE 6.2-2

POWER AUTHORITY OF THE STATE OF N.Y.
 INDIAN POINT NUCLEAR POWER PLANT
 PLANT STAFF ORGANIZATION

*Responsibility for performance and monitoring of the fire protection program.

Table 6.2-1

Minimum Shift Crew Composition *

License Category	During Operations Involving Core Alterations	During Cold Shutdown or Refueling Periods	At All Other Times
Senior Operator License	2**	1	1
Operator License	1	1	2
Non-Licensed	(As Required)	1	2

* Shift crew composition may be less than the minimum requirements for a period of time not to exceed 2 hours in order to accommodate unexpected absence of on-duty shift crew members provided immediate action is taken to restore the shift crew composition to within the minimum requirements of this Table.

** Includes individual with SRO license supervising fuel movement as per Section 6.2.2e.

6.3 PLANT STAFF QUALIFICATIONS

6.3.1 Each member of the plant staff shown in Fig. 6.2-2 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.

6.4 TRAINING

6.4.1 A retraining and replacement training program for the plant staff shall be maintained under the direction of the training coordinator and shall meet or exceed the requirements and recommendations of Section 5.5 or ANSI N18.1971 and Appendix "A" of 10 CFR Part 55.

6.4.2 A training program for the Fire Brigade shall be maintained under the direction of the Training Coordinator and shall meet or exceed the requirements of Section 27 of the NFPA Code-1976 with the exception of the training program schedule.

6.5 REVIEW AND AUDIT

6.5.1 PLANT OPERATING REVIEW COMMITTEE (PORC)

FUNCTION

6.5.1.1 The Plant Operating Review Committee shall function to advise the Resident Manager on all matters related to nuclear safety and all matters which could adversely change the plants environmental impact.

COMPOSITION

6.5.1.2 The Plant Operating Review Committee shall be composed of the:

Chairman:	Resident Manager
Vice-Chairman:	Superintendent of Power
Member:	Operating Superintendent
Member:	Technical Services Superintendent
Member:	Maintenance Superintendent
Member:	Instrument & Control Superintendent
Member:	Radiological and Environmental Services Superintendent

ALTERNATES

6.5.1.3 All 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 as voting members in (PORC) activities at any one time.

MEETING FREQUENCY

6.5.1.4 The PORC shall meet at least once per calendar month and as convened by the PORC Chairman or his designated alternate.

QUORUM

6.5.1.5 A quorum of the PORC shall consist of the Chairman or Vice-Chairman and four members including alternates.

RESPONSIBILITIES

6.5.1.6 The Plant Operating Review Committee shall be responsible for:

- a. Review of 1) all procedures affecting nuclear safety required by Specification 6.8 and changes thereto, and 2) any other proposed procedures or changes thereto as determined by the Resident Manager to affect Nuclear Safety.
- b. Review of all proposed tests and experiments that affect nuclear safety.

- c. Review of all proposed changes to the Operating License and Technical Specifications.
- d. Review of all proposed changes or modifications to plant systems or equipment that affect nuclear safety.
- e. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Resident Manager, who will forward the report to the Chairman of the Safety Review Committee and Manager-Nuclear Operations.
- f. Review of events requiring 24 hour notification to the Commission.
- g. Review of facility operations to detect potential nuclear safety hazards.
- h. Performance of special reviews, investigations or analyses and reports thereon as requested by the Resident Manager or the Chairman of the Safety Review Committee (SRC).
- i. Review of the Plant Security Plan and implementing procedures annually.
- j. Review of the Emergency Plan and implementing procedures annually.

AUTHORITY

6.5.1.7 The Plant Operating Review Committee shall:

- a. Recommend to the Resident Manager approval or disapproval of items considered under 6.5.1.6(a) through (d) above.
- b. Render determinations with regard to whether or not each item considered under 6.5.1.6(a) through (e) above constitutes an unreviewed safety question, as defined in 10 CFR 50.59.
- c. Provide notification within 24 hours to the Chairman of the SRC and the Manager of Nuclear Operations of disagreement between the PORC and the Resident Manager; however the Resident Manager shall have responsibility for resolution of such disagreements pursuant to 6.1.1 above.

RECORDS

6.5.1.8 The Plant Operating Review Committee shall maintain minutes of each meeting and copies shall be provided to the Chairman of the SRC and Manager-Nuclear Operations.

6.5.2 SAFETY REVIEW COMMITTEE (SRC)

FUNCTION

6.5.2.1 The SRC shall collectively have the competence required to review problems in the following areas:

- a. Nuclear power plant operations
- b. Nuclear engineering
- c. Chemistry and radiochemistry
- d. Metallurgy
- e. Instrumentation and control
- f. Radiological safety
- g. Mechanical engineering
- h. Electrical engineering
- i. Administrative controls and quality assurance practices
- j. Environment
- k. Civil/Structural Engineering
- l. Other appropriate fields associated with the unique characteristics of a nuclear power plant.

MEMBERSHIP

6.5.2.2 The SRC shall be composed of the following voting members:

Chairman:	Principal Nuclear Engineer - Staff
Vice-Chairman:	Director - Quality Assurance
Member:	Principal Nuclear Engineer - Projects
Member:	Radiological Engineer
Member:	Manager - Nuclear Operations
Member:	Principal Electrical Engineer - Staff
Member:	Director of Environmental Programs
Member:	Principal Civil/Structural Engineer
Member:	Principal Mechanical Engineer - Staff
Member:	Nuclear Engineer - Staff (Secretary of SRC)

ALTERNATES

6.5.2.3 All alternate members shall be appointed in writing by the SRC Chairman; however, no more than two alternates shall participate as voting members in SRC activities at any one time.

CONSULTANTS

6.5.2.4 Consultants shall be utilized as determined by the SRC Chairman to provide expert advice to the SRC.

MEETING FREQUENCY

6.5.2.5 The SRC shall meet at least once per calendar quarter during the initial year of facility operation following initial fuel loading and at least once per six months, thereafter.

QUORUM

6.5.2.6 A quorum of SRC shall consist of the Chairman or Vice-Chairman and four members, including alternates. No more than minority of the quorum shall have a direct line responsibility for the operation of the plant.

REVIEW

6.5.2.7 The SRC shall review:

- a. The safety evaluations for 1) changes to procedures, equipment or systems and 2) tests or experiments completed under the provision of Section 50.59, 10CFR, to verify that such actions did not constitute an unreviewed safety question.
- b. Proposed changes to procedures, equipment or systems which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- c. Proposed tests or experiments which involve an unreviewed safety question as defined in Section 50.59, 10 CFR.
- d. Proposed changes to Technical Specifications of this Operating License.
- e. Violations of codes, regulations, orders, Technical Specifications, license requirements, or of internal procedures or instructions having nuclear safety significance.
- f. Significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- g. Events requiring 24 hour written notification to the Commission.
- h. All recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components.
- i. Reports and meetings minutes of the Plant Operating Review Committee.
- j. The facility Fire Protection Program and implementing procedures at least once per two years.

AUDITS

6.5.2.8 Audits of facility activities shall be performed under the cognizance of the SRC. These audits shall encompass:

- a. The conformance of facility operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months.
- b. The performance, training and qualifications of the entire facility staff at least once per 12 months.
- c. The results of actions taken to correct deficiencies occurring in facility equipment, structures, systems or method of operation that affect nuclear safety at least once per 6 months.
- d. The performance of activities required by the Operational Quality Assurance Program to meet the criteria of Appendix "B", 10 CFR 50, at least once per 24 months.
- e. The Facility Emergency Plan and implementing procedures at least once per 24 months.
- f. The Facility Security Plan and implementing procedures at least once per 24 months.
- g. Any other area of facility operation considered appropriate by the SRC or the General Manager and Chief Engineer.
- h. The Facility Fire Protection Program and implementing procedures at least once per two years.
- i. A fire protection and loss prevention inspection and audit shall be performed annually utilizing either qualified offsite licensee personnel or an outside fire protection firm.
- j. An inspection and audit of the fire protection and loss prevention program shall be performed by an outside qualified fire consultant at intervals no greater than 3 years.

AUTHORITY

6.5.2.9 The SRC shall report to and advise the General Manager and Chief Engineer on those areas of responsibility specified in Sections 6.5.2.7 and 6.5.2.8.

RECORDS

6.5.2.10 Records will be maintained in accordance with ANSI 18.7-1972. The following shall be prepared, approved and distributed as indicated below:

- a. Minutes of each SRC meeting shall be prepared, approved and forwarded to the General Manager & Chief Engineer within 14 days after the date of the meeting.
- b. Reports of reviews encompassed by Section 6.5.2.7 above, shall be prepared, approved and forwarded to the General Manager & Chief Engineer within 14 days following completion of the review.
- c. Audit reports encompassed by Section 6.5.2.8 above, shall be forwarded to the General Manager & Chief Engineer and to the management positions responsible for the areas audited within 30 days after completion of the audit.

CHARTER

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

6.6 REPORTABLE OCCURRENCE ACTION

6.6.1 The following actions shall be taken for REPORTABLE OCCURRENCES:

- a. The Commission shall be notified and/or a report submitted pursuant to the requirements of Specification 6.9.
- b. Each REPORTABLE OCCURRENCE requiring 24 hour notification to the Commission shall be reviewed by the PORC and a report submitted by the Resident Manager to the Chairman of the SRC and Manager-Nuclear Operations.

6.7 SAFETY LIMIT VIOLATION

6.7.1 The following actions shall be taken in the event a Safety Limit is violated:

- a. 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. The Safety Limit violation shall be reported immediately to the Commission. The Chairman of the SRC and Manager-Nuclear Operations will be notified within 24 hours.

- c. A Safety Limit Violation Report shall be prepared by the PORC. This report shall describe (1) applicable circumstances preceding the occurrence, (2) effects of the occurrence upon facility components, systems or structures, and (3) corrective action taken to prevent recurrence.
- d. The Safety Limit Violation Report shall be submitted to the Commission, the Chairman of the SRC and the Manager-Nuclear Operations by the Resident Manager.

6.8 PROCEDURES

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

- a. The applicable procedures recommended in Appendix "A" of Regulatory Guide 1.33, November, 1972.
- b. Refueling operations.
- c. Surveillance and test activities of safety related equipment.
- d. Security Plan implementation.
- e. Emergency Plan implementation.

6.8.2 Temporary changes to procedures above may be made provided:

- a. The intent of the original procedures is not altered.
- b. The change is approved by two members of the plant staff, at least one of whom holds a Senior Reactor Operator's license on the unit affected.
- c. The change is documented, reviewed by the PORC and approved by the Resident Manager within 14 days of implementation.

6.8.3 Each procedure of 6.8.1 above, and changes thereto, shall be reviewed by the PORC and approved by the Resident Manager prior to implementation and reviewed periodically as set forth in administrative procedures.

6.9 REPORTING REQUIREMENTS

ROUTINE REPORTS AND REPORTABLE OCCURRENCES

6.9.1 In addition to the applicable reporting requirements of Title 10, Code of Federal Regulations, the following reports shall be submitted to the Director of the Regional Office of Inspection and Enforcement unless otherwise noted.

STARTUP REPORT

6.9.1.1 A summary report of appropriate plant testing shall be submitted following (1) an amendment to the license involving a planned increase in power level, (2) installation of fuel that has a different design and (3) modifications that may have significantly altered the nuclear, thermal, or hydraulic performances of the plant. The report shall address each of the tests identified in the FSAR and shall in general include a description of the measured values of the operating conditions or characteristics obtained during the testing and a comparison of these values with acceptance criteria. Any corrective actions that were required to obtain satisfactory operation shall also be described. Any additional specific details required in license conditions based on other commitments shall be included in this report.

6.9.1.2 Startup reports shall be submitted within (1) 90 days following completion of the startup test program, (2) 90 days following resumption or commencement of commercial power operation, or (3) 9 months following initial criticality, whichever is earliest. If the Startup Report does not cover all three events (i.e., initial criticality, completion of startup program, and resumption or commencement of commercial power operation), supplementary reports shall be submitted at least every three months until all three events have been completed.

ANNUAL RADIATION EXPOSURE REPORTS

6.9.1.3 A tabulation on an annual basis of the number of station, utility and other personnel (including contractors) receiving exposures greater than 100 mrem/yr and their associated man rem exposures according to work and job functions, 1/ e.g., reactor operations and surveillance, inservice inspection, routine maintenance, special maintenance, waste processing, and refueling. The dose assignment to various duty functions may be estimates based on pocket dosimeter, TLD, or film badge measurements. Small exposures totalling less than 20% of the individual total dose need not be accounted for. In the aggregate, at least 80% of the total whole body dose received from external sources shall be assigned to specific major work functions.

MONTHLY OPERATING REPORT

6.9.1.4 Routine reports of operating statistics, operating and shutdown experience and safety-related maintenance shall be submitted on a monthly basis to the Director, Office of Management Information and Program Control, with 40 copies to the Office of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, no later than 15 days following the calendar month covered by the report.

1/ This tabulation supplements the requirements of 20.407 of 10 CFR Part 20.

6.9.1.5 Each monthly operating report shall include:

- a. A tabulation of plant operating data and statistics.
- b. A narrative summary of operating experience during the report period relating to safe operation of the facility, including safety-related maintenance not covered in 6.9.1.5.c.5 below^{2/}
- c. For each outage or forced reduction in power^{3/} of over twenty percent of RATED POWER where the reduction extends for greater than four hours:
 1. The proximate cause and the system and major component involved (if the outage or forced reduction in power involved equipment malfunction);
 2. A brief discussion of (or reference to reports of) any reportable occurrences pertaining to the outage or power reduction;
 3. Corrective action taken to reduce the probability of recurrence, if appropriate;
 4. Operating time lost as a result of the outage or power reduction (for scheduled or forced outages^{4/} use the generator off-line hours; for forced reductions in power, use the approximate duration of operation at reduced power);
 5. A description of major safety-related corrective maintenance performed during the outage or power reduction, including the system and component involved and identification of the critical path activity dictating the length of the outage or power reduction; and
 6. A report of any single release of radioactivity or radiation exposure specifically associated with the outage which accounts for more than 10% of the allowable annual values.

^{2/}Any safety-related maintenance information not available for inclusion in the monthly operating report for a report period shall be included in a subsequent monthly operating report not later than 6 months following completion of such maintenance.

^{3/}The term "forced reduction in power" is defined as the occurrence of a component failure or other condition which requires that the load on the unit be reduced for corrective action immediately or up to and including the very next weekend. Note that routine preventive maintenance, surveillance and calibration activities requiring power reductions are not covered by this section.

^{4/}The term "forced outage" is defined as the occurrence of a component failure or other condition which requires that the unit be removed from service for corrective action immediately or up to and including the very next weekend.

REPORTABLE OCCURRENCES

6.9.1.6 The REPORTABLE OCCURRENCES of Specifications 6.9.1.7 and 6.9.1.8 below, including corrective actions and measures to prevent recurrence, shall be reported to the NRC. Supplemental reports may be required to fully describe final resolution of occurrence. In case of corrected or supplemental reports, a licensee event report shall be completed and reference shall be made to the original report date.

PROMPT NOTIFICATION WITH WRITTEN FOLLOWUP

6.9.1.7 The types of events listed below shall be reported within 24 hours by telephone and confirmed by telegraph, mailgram, or facsimile transmission to the Director of the Regional Office, or his designate no later than the first working day following the event, with a written followup report within two weeks. The written followup report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- a. Failure of the reactor protection system or other systems subject to limiting safety system settings to initiate the required protective function by the time a monitored parameter reaches the setpoint specified as the limiting safety system setting in the technical specifications or failure to complete the required protective function.
- b. Operation of the unit or affected system when any parameter or operation subject to a limiting condition for operation is less conservative than the least conservative aspect of the limiting condition for operation established in the technical specifications.
- c. Abnormal degradation discovered in fuel cladding, reactor coolant pressure boundary, or primary containment. ^{5/}
- d. Reactivity anomalies involving disagreement with the predicted value of reactivity balance under steady conditions during power operation greater than or equal to $1\% \Delta k/k$; a calculated reactivity balance indicating a SHUTDOWN MARGIN less conservative than specified in the technical specifications; short-term reactivity increases that correspond to a reactor period of less than 5 seconds or, if subcritical, an unplanned reactivity insertion of more than $0.5\% \Delta k/k$; or occurrence of any unplanned criticality.
- e. Failure or malfunction of one or more components which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems(s) used to cope with accidents analyzed in the SAR.

^{5/} Leakage of packing, gaskets, mechanical joints and seal welds within the limits for identified leakage set forth in technical specifications need not be reported under this item. Steam generator tube degradation need not be reported under this item except where leakage exceeds the limits of specification 3.1.F.

- f. Personnel error or procedural inadequacy which prevents or could prevent, by itself, the fulfillment of the functional requirements of systems required to cope with accidents analyzed in the SAR.
- g. Conditions arising from natural or man-made events that, as a direct result of the event require plant shutdown, operation of safety systems, or other protective measures required by technical specifications.
- h. Errors discovered in the transient or accident analyses or in the methods used for such analyses as described in the safety analysis report or in the bases for the technical specifications that have or could have permitted reactor operation in a manner less conservative than assumed in the analyses.
- i. Performance of structures, systems, or components that requires remedial action or corrective measures to prevent operation in a manner less conservative than assumed in the accident analyses in the safety analysis report or technical specifications bases; or discovery during plant life of conditions not specifically considered in the safety analysis report or technical specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition.

THIRTY DAY WRITTEN REPORTS

6.9.1.8 The types of events listed below shall be the subject of written reports to the Director of the Regional Office within thirty days of occurrence of the event. The written report shall include, as a minimum, a completed copy of a licensee event report form. Information provided on the licensee event report form shall be supplemented, as needed, by additional narrative material to provide complete explanation of the circumstances surrounding the event.

- a. Reactor protection system or engineered safety feature instrument settings which are found to be less conservative than those established by the technical specifications but which do not prevent the fulfillment of the functional requirements of affected systems. ^{6/}
- b. Conditions leading to operation in a degraded mode permitted by a limiting condition for operation or plant shutdown required by a limiting condition for operation. ^{6/}
- c. Observed inadequacies in the implementation of administrative or procedural controls which threaten to cause reduction of degree of redundancy provided in reactor protection systems or engineered safety feature systems.

^{6/} Routine surveillance testing, instrument calibration, or preventive maintenance which require system configurations as described need not be reported except where test results themselves reveal a degraded mode as described.

- d. Abnormal degradation of systems other than those specified in 6.9.1.7.c above designed to contain radioactive material resulting from the fission process. ^{1/}

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Director of the Office of Inspection and Enforcement Regional Office within the time period specified for each report. These reports shall be submitted covering the activities identified below pursuant to the requirements of the applicable reference specification:

- a. Sealed source leakage on excess of limits (Specification 3.9)
- b. Inoperable Seismic Monitoring Instrumentation (Specification 4.10)
- c. Primary coolant activity in excess of limits (Specification 3.1.D)
- d. Seismic event analysis (Specification 4.10)
- e. Inoperable fire protection and detection equipment (Specification 3.14)

6.10 RECORD RETENTION

6.10.1 The following records shall be retained for at least five years:

- a. Records and logs of facility operation covering time interval at each power level.
- b. Records and logs of principal maintenance activities, inspections, repair and replacement of principal items of equipment related to nuclear safety.
- c. ALL REPORTABLE OCCURRENCES submitted to the Commission.
- d. Records of surveillance activities, inspections and calibrations required by these Technical Specifications.
- e. Records of changes made to Operating Procedures.
- f. Records of radioactive shipments.
- g. Records of sealed source and fission detector leak tests and results.
- h. Records of annual physical inventory of all source material of record.
- i. Records of reactor tests and experiments.

^{1/} Sealed sources or calibration sources are not included under this item. Leakage of packing, gaskets, mechanical joints and seal welds within the limits for identified leakage set forth in technical specifications need not be reported under this item.

6.10.2 The following records shall be retained for the duration of the Facility Operating License:

- a. Records of any drawing changes reflecting facility design modifications made to systems and equipment described in the Final Safety Analysis Report.
- b. Records of new and irradiated fuel inventory, fuel transfers and assembly burnup histories.
- c. Records of facility radiation and contamination surveys.
- d. Records of radiation exposure for all individuals entering radiation control areas.
- e. Records of gaseous and liquid radioactive material released to the environs.
- f. Records of transient or operational cycles for those facility components designed for a limited number of transient cycles.
- g. Records of training and qualifications for current members of the plant staff.
- h. Records of in-service inspections performed pursuant to these Technical Specifications.
- i. Records of Quality Assurance activities required by the QA manual.
- j. Records of reviews performed for changes made to procedures or equipment or reviews of tests and experiments pursuant to 10 CFR 50.59.
- k. Records of meetings of the PORC and the SRC.

6.11 RADIATION AND RESPIRATORY PROTECTION PROGRAM

6.11.1 Procedures for personnel radiation protection shall be prepared consistent with the requirements of 10 CFR Part 20 and shall be approved, maintained and adhered to for all operations involving personnel radiation exposure as to maintain exposures as far below the limits specified in 10 CFR Part 20 as reasonable achievable. Pursuant to 10 CFR 20.103 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.

6.12 HIGH RADIATION AREA

6.12.1 In lieu of the "control device" or "alarm signal" required by paragraph 20.203(c) (2) of 10 CFR 20, each high radiation area in which the intensity of radiation is 1000 mrem/hr or less and 100 mrem/hr or greater shall be barricaded and conspicuously posted as a high radiation area and entrance thereto shall be controlled by requiring issuance of a Radiation Work Permit*. Any individual or group of individuals permitted to enter such areas shall be provided or accompanied by one or more of the following:

- a. A radiation monitoring device which continuously indicates the radiation dose rate in the area.
- b. A radiation monitoring device which continuously integrates the radiation dose rate in the area and alarms when a preset integrated dose is received. Entry into such areas with this monitoring device may be made after the dose rate level in the area has been established and personnel have been made knowledgeable of them.
- c. An individual qualified in radiation protection procedures who is equipped with a radiation dose rate monitoring device. This individual shall be responsible for providing positive control over the activities within the area and shall perform periodic radiation surveillance at the frequency specified by the facility Health Physicist in the Radiation Work Permit.

6.12.2 The requirements of 6.12.1, above, shall also apply to each high radiation area in which the intensity of radiation is greater than 1000 mrem/hr. In addition, locked doors shall be provided to prevent unauthorized entry into such areas and the keys shall be maintained under the administrative control of the Shift Supervisor on duty and/or the plant Radiological and Environmental Superintendent or his designee.

* Health Physics Personnel shall be exempt from the RWP issuance requirements for entries into high radiation areas during the performances of their assigned radiation protection duties, provided they comply with approved radiation protection procedures for entry into high radiation areas.

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 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 Indian Point No. 3 Plant is conducted in such a manner as to provide continuing protection to the environment. During periods when the Resident Manager is unavailable, he shall delegate his responsibilities to the Superintendent of Power, or in his absence, to other qualified supervisory personnel.

5.1.3 The 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 Monitoring of environmental programs will be performed by site technical personnel, and when necessary, 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 BY PLANT OPERATING REVIEW COMMITTEE (PORC)

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

5.3.2 The responsibilities of the Plant Operating Review Committee as related to the Environmental Technical Specifications are as follows:

- a. Review results of environmental monitoring programs prior to submittal in each annual environmental monitoring report.
- b. Review proposed changes to the Environmental Technical Specifications and the evaluated impact of the change.
- c. Review proposed changes or modifications to the plant systems or equipment and the evaluated impact which would adversely affect the evaluation of the plant's environmental impact.
- d. Review the Environmental Technical Specification development with the Safety Technical Specifications to avoid conflicts and for consistency.
- e. Review all proposed procedures or changes thereto which pertain to these ETS requirements.
- f. Review all reported violations of Environmental Technical Specifications. Where review warrants, 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 Plant Operating Review Committee 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 REVIEW AND AUDIT BY SAFETY REVIEW COMMITTEE (SRC)

5.4.1 Review and audit of environmental matters by the SRC shall be as described below and in Section 6.5.2 of Appendix A.

5.4.2 The responsibilities of the Safety Review Committee as related to the Environmental Technical Specifications are as follows:

- a. Review proposed changes and/or modifications to procedures, equipment or systems which adversely affect the plant's environmental impact.
- b. Review proposed tests and experiments which adversely affect the plant's environmental impact.

- c. Review proposed changes in the Operating License and Technical Specifications relating to environmental concerns.
- d. Make or cause to be made periodic audits of plant operation to verify conformance with the Environmental Technical Specifications.
- e. Review violations of the Environmental Technical Specifications.

5.5

PROCEDURES

5.5.1 Detailed written procedures, including applicable checklists and instructions, shall be prepared and 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 manufacturers' 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.

5.5.3 Temporary changes to procedures above may be made provided:

- a. The intent of the original procedures is not altered.
- b. The change is approved by two members of the plant staff, at least one of whom holds a Senior Reactor Operator's license on the unit affected.
- c. The change is documented, reviewed by the PORC and approved by the Resident Manager within 30 days of implementation.

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 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 effect 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. Specifically the following information shall be provided in this report:

(1) Thermal Discharges and Hydraulics

- Data on daily maximum, minimum, and average temperature measurements of the water in the intake and discharge canal water, and the ΔT_c across the Circulating Water System during full and reduced flows and during pump maintenance and deicing operations.
- Any rate of temperature change across the condenser pursuant to Sections 2.1.4 and 3.1.4.
- Nominal Unit No. 3 Condenser flow rates, and changes in flow rates including date and time of day when reduced flow takes place.
- Calculated total thermal energy in Btu released from Unit No. 3 through the discharge outfall during the month.
- Calculated Unit No. 3 maximum and average release rate of energy through the discharge outfall in Btu per hour.
- Calculated intake velocity and flow rate per Unit No. 3 intake screen.
- Calculated discharge velocity and head differential across the discharge canal (24 hrs. average).

(2) Chlorination of Cooling Water

- The dates on which Unit No. 3 chlorination was performed.
- Amount of sodium hypochlorite consumed during each Unit No. 3 chlorination.
- Concentration of sodium hypochlorite used.
- Analytical results of chlorine tests.

- Unit No. 3 cooling water flow rate during Unit No. 3 chlorination.

(3) Chemical Discharges and Water Quality

- Dates at which samples were taken and analyzed in accordance with Table 2.3.-1.
- Analytical results of tests performed in accordance with Table 2.3.-1.
- Inventory of chemicals discharged from Unit No. 3 in accordance with Table 2.3.-2.
- Unit No. 3 water flow rate in the discharge canal at times of releases.
- Amount of non-radioactive Unit No. 3 solid waste material collected (in cubic feet) at the intake screens and disposed of as solid waste in accordance with local regulations.
- Dissolved oxygen concentration measurements.
- pH measurements.

NOTE: As Indian Point Unit No. 3 shares a common discharge canal with Indian Point Units No. 1 and 2, the figures reported under 5.6.1 a (1)-(3) will be site figures unless specifically noted as Unit No. 3 figures.

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 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 effect 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.

5.6.1

b. Semiannual, and/or Special Environmental Operating Reports

(1) Non-Radiological

A Progress report and/or Annual Report shall be submitted by the licensee to the Director of Office of Nuclear Reactor Regulation by the end of July and the end of January, or as otherwise specified below, describing activities of the Thermal Plume Mapping and Ecological Survey Program, Entrainment Studies, Impingement Studies, and Special studies for the prior six-month interval. Information to be presented will include the following:

NOTE: These programs and studies will be performed in conjunction with Consolidated Edison, operators of Indian Point Units No. 1 and 2, and a joint report issued.

- (a) Effects of chlorine and other chemical discharges on the ecosystem of the Hudson River in accordance with Sections 2.3 and 3.3 and 4.1.2a(2).
- (b) Reduction in frequency of chlorination and reduction in concentration of free and combined residual chlorine in the discharge canal.
- (c) Thermal plume model verification and mapping (near and far field) in accordance with Section 4.1.1.a.
- (d) Ecological effects of thermal discharges in accordance with Section 4.1.2a(2).
- (e) Potential reduction in dissolved oxygen in the cooling water through the plant.
- (f) An assessment of performance of fish pumps as installed.
- (g) Results of the general ecological survey in accordance with Section 4.1.2a(1).

- (h) Ecological effects of entrainment of organisms in accordance with Section 4.1.2a(2)V.
- (i) Evaluation of head loss across the fixed intake screens as a function of velocity through the screens and fish collected.
- (j) Ecological effects of fish impingement in accordance with Section 4.1.2a(2)VI.
- (k) Other ecological effects as indicated in Section 4.0.
- (l) Evaluation of data in accordance with Section 4.1.2a(2) (I through IV).

Upon completion of the environmental surveillance studies described in Section 4.0, a final summary report shall be submitted within six (6) months of completion of each study to the Director, Office of Nuclear Reactor Regulation.

Monthly report on the number of each species of fish collected per day on the intake screens shall be submitted to the Region I Office of Inspection and Enforcement and copies to the Director of Office of Nuclear Reactor Regulation and the New York Department of Environmental Conservation, in accordance with items (b) and (c) under Reporting Requirements in Section 4.1.2a(2)VI.

All reports submitted to other Federal agencies or to the New York State Department of Environmental Conservation as a requirement of a permit or certificate involving environmental matters containing information not already covered in the ETSR, shall also be submitted to the NRC at the same time.

5.6.1

c. Radioactive Effluent Release Report

A report on the radioactive discharges released from the plant 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 released and solid waste shipped from the plant as outlined in Regulatory Guide 1.21, Rev.1, "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, Rev.1, 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 4, "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 NRC 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.

5.6.2
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 if said radioactivity is caused by operation of Unit No. 3.* This report shall include an evaluation of any release conditions, environ-

* A confirmatory reanalysis of the original, a duplicate, or a 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.

mental factors, or other aspects necessary to explain the anomalous result.

(2) Milk Pathway Measurements

(a) If cow or goat milk samples collected over a calendar quarter show average concentrations of 4.8 picocuries per liter or greater, and if said radioactivity is caused by operation of Unit No. 3, a plan shall be submitted within 30 days advising the Director of Office of Inspection and Enforcement of the proposed action to ensure the plant-related annual doses will be within the design objective of 15 mrem/yr to the thyroid of any individual.

(b) When pasture grass is sampled rather than goat milk, if individual pasture grass samples show I-131 concentrations of 0.022 picocuries per gram (wet weight) or greater, and if said radioactivity is caused by operation of Unit No. 3, a plan shall be submitted within 30 days advising the Director of Office of Inspection and Enforcement of the proposed action to ensure that plant-related annual doses will be within the design objective of 15 mrem/yr to the thyroid of any individual.

(3) Nonroutine Radioactive Effluent Report

The reporting requirements for nonroutine radioactive discharges are specified in Section 2.4 and 3.4 of these specifications.

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 adverse 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. At the same time, the licensee shall notify the N.Y.S. Department of Environmental Conservation of the request. The request shall include an evaluation of the environmental impact of the proposed change and a supporting benefit-cost analysis.

c. When changes or additions to permits and certificates required by Federal, state, local, and regional authorities for the protection of the environment are submitted to the concerned agency for approval, they will also be submitted to the Division of Operating Reactors, USNRC, for information.

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.

5.10

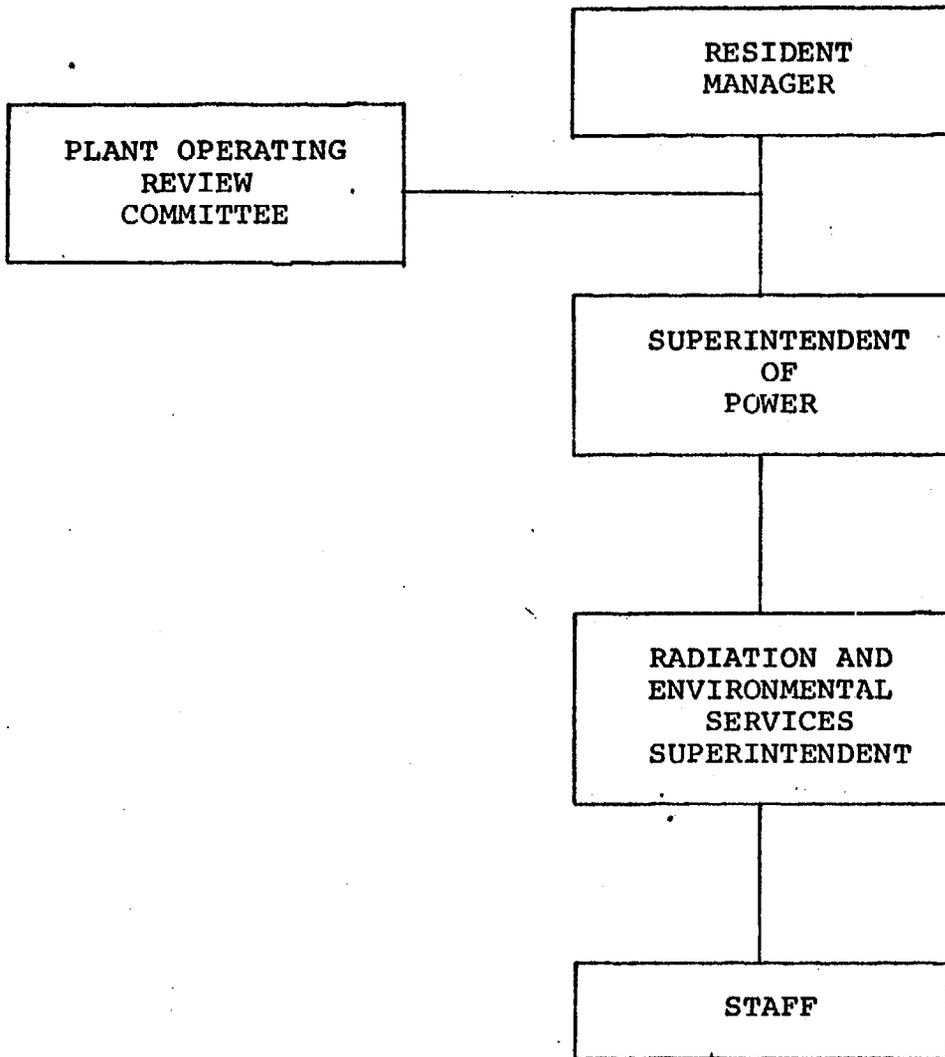


FIGURE 5.2-1
PLANT ORGANIZATION - ENVIRONMENTAL
INDIAN POINT 3 NUCLEAR POWER PLANT

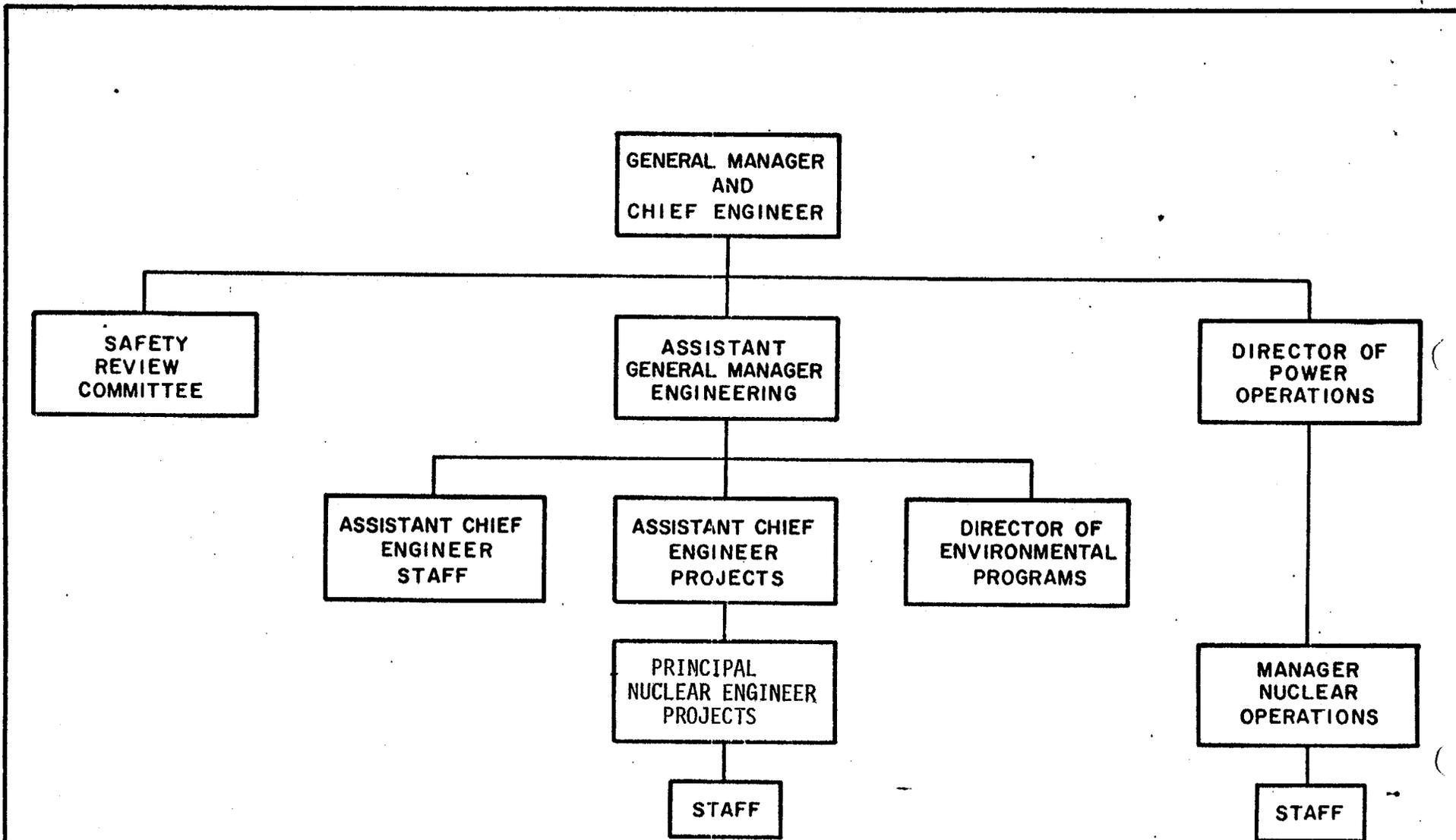


FIGURE 5.2 - 2
 MANAGEMENT ORGANIZATION
 ENVIRONMENTAL
 INDIAN POINT 3 NUCLEAR POWER PLANT



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 12 TO FACILITY OPERATING LICENSE NO. DPR-64

POWER AUTHORITY OF THE STATE OF NEW YORK
AND
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-286

Introduction

By letters dated March 16, 1977 as supplemented by letters dated August 9, 1977, October 27, 1977, December 14, 1977 and December 20, 1977, the Power Authority of the State of New York (PASNY) and Consolidated Edison Company of New York, Inc. (Con Ed), proposed changes to Facility Operating License No. DPR-64 and to the Technical Specifications appended to the license for Indian Point Nuclear Generating Unit No. 3 (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 December 12, 1975 the Nuclear Regulatory Commission issued Operating License No. DPR-64 to the co-licensees, PASNY and Con Ed. PASNY was authorized to own but not to operate the facility. Con Ed 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 operating license to assume operating responsibility for the facility. The March 16, 1977 letter from PASNY and Con Ed requested a license amendment for PASNY to assume responsibility for plant operations.

Evaluation

1. Summary

The operational takeover of the Indian Point Unit No. 3 by PASNY from Con Ed has evolved over a two year period of developing capabilities by PASNY. PASNY was continuously involved, as owner, in plant operations. Financial support of plant operations has

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been the responsibility of PASNY and is unchanged. The PASNY operating staff will be, in many instances, former Con Ed employees. Changes have been proposed to the Security Plan, Emergency Plan, Quality Assurance (QA) 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 May 16, 1977, as revised by letters dated November 3, 1977, December 14 and 21, 1977, January 11, 1978 and February 3, and 27, 1978, and March 2, 1978, PASNY submitted the Interim Security Plan through Revision No. 7 for Indian Point Unit No. 3 to enable the proposed operational takeover. This Interim Security Plan contains the procedural requirements as required by 10 CFR 73.55 of the regulations and will continue to be upgraded to meet the complete requirements of 10 CFR 73.55 by August 24, 1978. This plan through Revision No. 7 is found to be acceptable for meeting the Security requirements for an operating license. The details of this matter are withheld from public disclosure pursuant to 10 CFR 2.790.

3. Emergency Plan

The emergency plan was submitted by letter dated March 16, 1977 as supplemented by letter dated August 9, 1977 and is essentially the previously approved Emergency Plan. PASNY has obtained commitments for off-site assistance from appropriate groups and individuals for specified emergencies. We have determined the the emergency plan for IP-3 continues to be acceptable but have requested by separate letter that both PASNY and Con Ed provide schedules for revision of their emergency plans to be consistent with the content and format of Regulatory Guide 1.101.

4. Quality Assurance Program

The Quality Assurance Program was part of the March 16, 1977 submittal as supplemented by letter dated August 9, 1977.

PASNY has described the duties, responsibilities, and authority of those individuals and groups involved in carrying out activities required by the QA program. The measures used to carry out the QA program activities are also provided including a description of how the requirements of Appendix B will be satisfied by the administration and implementation of these measures.

Based on our detailed review and evaluation of the QA program description, we conclude that:

1. The QA organization of PASNY is provided sufficient independence from cost and schedule (when opposed to safety considerations), sufficient authority to effectively carry out the operations QA program, and sufficient access to management at a level necessary to perform their QA functions.
2. The QA program description contains adequate QA requirements and a comprehensive system of planned and systematic controls which address each of the criteria of Appendix B to 10 CFR Part 50 in an acceptable manner.

Accordingly, PASNY's "Quality Assurance Program" is acceptable for the operations phase of Indian Point Unit No. 3.

5. Conduct of Operations

We have reviewed Section 13, Conduct of Operations, of the March 16, 1977 PASNY submittal as supplemented by letters dated August 9, 1977 and October 27, 1977. We used the following criteria in our review:

- a. Comparison of the proposed organizational structure with conventional plant organizations in use at other nuclear plants.
- b. Comparison of personnel qualifications with Regulatory Guide 1.8, which in turn endorses ANSI N18.1-1971.

- c. Comparison of resumes of key plant personnel with ANSI N18.1, and
- d. Comparison of off-site technical support with other operating plants.

(1) Organizational Structure

Based on our review of Section 13.1, we find that PASNY's proposed facility staff organization, staff qualifications, and provisions for off-site technical support meet the NRC position described in Regulatory Guide 1.33 and 1.8 and are acceptable.

(2) 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 facility 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, facility 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.

(3) 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 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 Environmental Technical Specifications are basically unchanged from those presently in effect.

The proposed March 16, 1977, Administrative Controls, Section 5.0, of the Environmental TS have been reviewed by comparison with the TS currently in force. PASNY 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. The Administrative Controls Section of the Environmental TS are acceptable.

Conclusions

We have determined, based on our review and evaluation of the foregoing, that the Power Authority of the State of New York is qualified to assume sole operating responsibility of the Indian Point Nuclear Generating Unit No. 3. 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: March 8, 1973

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-286POWER AUTHORITY OF THE STATE OF NEW YORKNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY
OPERATING LICENSE

The U. S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 12 to Facility Operating License No. DPR-64, issued to Power Authority of the State of New York (PASNY) for operation of Indian Point Nuclear Generating Unit No. 3 (the facility) located in Westchester County, New York. The amendment is effective at 12:01 a.m., March 10, 1978.

The amendment is administrative in nature and permits PASNY to assume sole responsibility for the operation of the facility. Previously, Consolidated Edison Company of New York, Inc. (Con Ed), 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

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pursuant to 10 CFR §1.5(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 March 16, 1977, as supplemented on August 9, 1977, October 27, 1977, and December 14 and 20, 1977, (2) Amendment No. 12 to License No. DPR-64, 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 White Plains Public Library, 100 Martine Avenue, White Plains, 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 8th day of March 1978.

FOR THE NUCLEAR REGULATORY COMMISSION



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