

Attachment I to IPN-94-047

**PROPOSED TECHNICAL SPECIFICATION
CHANGES TO RELOCATE FIRE PROTECTION
TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT

Docket No. 50-286

DPR-64

9404280320 940418
PDR ADDCK 05000286
P PDR

Section 3.14

FIRE PROTECTION
AND DETECTION SYSTEMS

has been deleted.

3.14-1

Amendment No. 10, 43,

Section 4.12

FIRE PROTECTION
AND DETECTION SYSTEMS

has been deleted.

4.12-1

Amendment No. ~~45~~,

- d) The individuals who train the operating staff and those who carry out health physics and quality assurance functions may report to the appropriate onsite manager; however, they shall have sufficient organizational freedom to ensure their independence from operating pressures.

6.2.2 PLANT STAFF

- a) Each 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) Deleted.

6.3 PLANT STAFF QUALIFICATIONS

6.3.1 Each member of the plant staff shall meet or exceed the minimum qualifications of ANSI N18.1-1971 for comparable positions, except for (1) the Radiological and Environmental Services Manager who shall meet or exceed the qualifications of Regulatory Guide 1.8, September 1975; (2) the Shift Technical Advisor who shall have a bachelor's degree or equivalent in a scientific or engineering discipline with specific training in plant design and response and analysis of the plant for transients and accidents; and (3) the Operations Manager who shall meet or exceed the minimum qualifications of ANSI N18.1-1971 except for the SRO license requirement which shall be in accordance with Technical Specification 6.2.2.i.

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 Manager and shall meet or exceed the requirements and recommendations of Section 5.5 of ANSI N18.1-1971 and 10 CFR Part 55.59.

6.4.2 Deleted.

6.4.3 A training program for use of the post-accident sampling system shall be maintained to ensure that the plant has the capability to obtain and analyze reactor coolant and containment atmosphere samples under post-accident conditions.

6.4.4 A training program shall be maintained to ensure that the plant has the capability to collect and analyze or measure representative samples of radioactive iodines and particulates in plant gaseous effluent during and following an accident.

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 plant's environmental impact.

- 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. Review of changes to the PROCESS CONTROL PROGRAM and the OFFSITE DOSE CALCULATION MANUAL.
- f. Investigation of all violations of the Technical Specifications including the preparation and forwarding of reports covering evaluation and recommendations to prevent recurrence to the Resident Manager, who will forward the report to the Chairman of the Safety Review Committee and Executive Vice President-Nuclear Generation.
- g. Review of all reportable events.
- h. Review of facility operations to detect potential nuclear safety hazards.
- i. 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).
- j. Review of the Plant Security Plan and implementing procedures annually.
- k. Review of the Emergency Plan and implementing procedures annually.
- l. Review of every unplanned onsite release of radioactive material to the environs including the preparation of reports covering evaluation, recommendations and disposition of the corrective action to prevent recurrence and the forwarding of these reports to the Resident Manager and to the Safety Review Committee.
- m. Review of the Fire Protection Program and implementing procedures.

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 (e) 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.

- 3f. WCAP-12610, "VANTAGE+ Fuel Assembly Report," (W Proprietary).
(Methodology for Specification 3.10.2 - Heat Flux Hot Channel Factor).

- 6.9.1.6.c The core operating limits shall be determined so that all applicable limits (e.g., fuel thermal-mechanical limits, core thermal-hydraulic limits, ECCS limits, nuclear limits such as shutdown margin, and transient and accident analysis limits) of the safety limits are met.
- 6.9.1.6.d The CORE OPERATING LIMITS REPORT, including any mid-cycle revisions or supplements thereto, shall be provided upon issuance, for each reload cycle, to the NRC Document Control Desk with copies to the Regional Administrator and Resident Inspector.

SPECIAL REPORTS

6.9.2 Special reports shall be submitted to the Regional Administrator-Region 1 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. Seismic event analysis (Specification 4.10)
- d. Inoperable plant vent sampling, main steam line radiation monitoring or effluent monitoring capability (Table 3.5-4, items 5, 6 and 7)
- e. The complete results of the steam generator tube inservice inspection (Specification 4.9.C)
- f. Deleted
- g. Release of radioactive effluents in excess of limits (Appendix B Specifications 2.3, 2.4, 2.5, 2.6)

Attachment II to IPN-94-047

**PROPOSED OPERATING LICENSE CHANGES
TO RELOCATE FIRE PROTECTION
TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT
Docket No. 50-286
DPR-64

Section 2.H. of the License should be revised to read as follows:

Fire Protection

The licensee shall implement and maintain in effect all provisions of the approved Fire Protection Program as described in the Final Safety Analysis Report for the Indian Point 3 Nuclear Power Plant and as approved in the SERs dated September 21, 1973, March 6, 1979, May 2, 1980, November 18, 1982, December 30, 1982, February 2, 1984, April 16, 1984, January 7, 1987, May 27, 1988, September 9, 1988, October 21, 1991 and supplements thereto, subject to the following provision:

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

Attachment III to IPN-94-047

**SAFETY EVALUATION FOR THE
PROPOSED TECHNICAL SPECIFICATION
CHANGES TO RELOCATE FIRE PROTECTION
TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT
Docket No. 50-286
DPR-64

I. DESCRIPTION OF THE PROPOSED CHANGES

These changes to the Indian Point 3 Technical Specifications propose to relocate the fire protection requirements of Technical Specification Sections 3.14 and 4.12, and fire brigade staffing and training requirements of Specifications 6.2.2(f) and 6.4.2 from the Technical Specifications to the Operational Specifications. In addition, Specification 6.9.2(f) has been removed from the Special Reports Section to be consistent with the relocation of the associated Limiting Conditions for Operation (LCO) of Technical Specification 3.14. It is contained in the Actions Required sections of the Operational Specifications. This submittal also requests the inclusion of the standard Fire Protection license conditions with the standard license condition for a Fire Protection Program as suggested in Generic Letter 86-10, "Implementation of Fire Protection Requirements," dated April 24, 1986. In addition, these changes include adding onsite audit requirements for the fire protection program and implementing procedures.

The removal of Fire Protection requirements from the Technical Specifications is requested in accordance with the guidance in Generic Letter 86-10 and Generic Letter 88-12, "Removal of Fire Protection Requirements from Technical Specifications," dated August 2, 1988. The following paragraphs address the elements that these generic letters recommend to remove the Fire Protection Technical Specification requirements. The guidance of these Generic Letters suggests that the fire protection program be incorporated into the Final Safety Analysis Report (FSAR). Generic Letter 88-12 states that "this may be accomplished by referencing the documents which define the licensee's Fire Protection Program as identified in the NRC's Safety Evaluation Reports." The following is a list of references where the Fire Protection Program is located.

Program Item	Document
Fire Protection Program Plan (per 10 CFR 50.48)	Incorporated by reference into the FSAR Section 9.6.2.1.
Fire Hazards Analysis and major commitments.	Indian Point 3 Nuclear Power Plant Fire Protection Reference Manual (FPRM) Section 6 and Appendices A & B referenced by FSAR Section 9.6.2.1.
Previous Tech Spec LCOs and Surveillance Requirements on High Pressure Water Fire Protection System (3.14.A and 4.12.A)	Indian Point 3 Operational Specification 3.4.1.

Previous Tech Spec LCOs and Surveillance Requirements on Fire Protection Spray and/or Sprinkler Systems (3.14.B and 4.12.B)	Indian Point 3 Operational Specification 3.4.2.
Previous Tech Spec LCOs and Surveillance Requirements on Penetration Fire Barriers (3.14.C and 4.12.C)	Indian Point 3 Operational Specification 3.4.3.
Previous Tech Spec LCOs and Surveillance Requirements on Fire Detection Systems (3.14.D and 4.12.D)	Indian Point 3 Operational Specification 3.4.4.
Previous Tech Spec LCOs and Surveillance Requirements on Fire Hose Stations (3.14.E and 4.12.E)	Indian Point 3 Operational Specification 3.4.5.
Previous Tech Spec LCOs and Surveillance Requirements on Yard Fire Hydrants and Hydrant Hose Houses (3.14.F and 4.12.F)	Indian Point 3 Operational Specification 3.4.6.
Previous Tech Spec LCOs and Surveillance Requirements on CO ₂ Fire Protection System (3.14.G and 4.12.G)	Indian Point 3 Operational Specification 3.4.7.
Previous Tech Spec Administrative Requirements on Fire Brigade Staffing (Section 6.2.2(f))	Indian Point 3 Operational Specification 3.4.8.

Previous Tech Spec Administrative Requirements on Fire Brigade Training (Section 6.4.2)	Indian Point 3 Operational Specification 3.4.8
Previous Tech Spec Administrative Requirement on Special Reports for inoperable fire protection and detection equipment (Section 6.9.2(f))	Incorporated into individual Required Action Statements in Operational Specifications 3.4.1 through 3.4.7 above.
Review of the Fire Protection Program and implementing procedures as a Plant Operating Review Committee responsibility.	New Technical Specification 6.5.2.7 (j) for onsite review committee

II. PURPOSE OF THE PROPOSED CHANGES

Nuclear Regulatory Commission (NRC) Generic Letter 86-10 (Reference 1) provides guidance for acceptable methods of satisfying NRC requirements pertaining to fire protection. Section F of Generic Letter 86-10, "Addition of Fire Protection Program into FSAR," mentions several problems for licensees and NRC inspectors in identifying the operative and enforceable fire protection requirements at each licensed facility. The NRC has attributed these problems to variations in license conditions and to the many submittals which typically constitute the fire protection "programs" for each plant. A specific problem identified is the difficulty in making changes to the approved fire protection program without first requesting a license amendment. As the NRC staff stated:

"If the fire protection program committed to by the licensee is required by a specific license condition or is not part of the FSAR for the facility, the provisions of 10 CFR 50.59 may not be applied to make changes without prior NRC approval. Thus, licensees may be required to submit amendment requests even for relatively minor changes to the fire protection program."

The NRC has concluded that one way to resolve this problem is to incorporate the fire protection program and major commitments, including the fire hazards analysis, by reference into the Final Safety Analysis Report (FSAR) for the facility. In so doing, the plant features associated with the fire protection program would be on a consistent status with other plant features described in the FSAR. In addition, the provisions of 10 CFR 50.59 would then apply for changes made in the fire protection program.

The NRC also concluded in Generic Letter 86-10 that a standard license condition, requiring licensees to comply with the provisions of the fire protection program as described in the FSAR, should be used to ensure uniform enforcement of fire protection requirements.

Generic Letter 88-12 (Reference 2) provided further guidance for the preparation of the license amendment to implement Generic Letter 86-10. Generic Letter 88-12 suggested that the amendment should remove the fire protection requirements from Technical Specifications (TS) in four major areas: fire detection systems, fire suppression systems, fire barriers, and fire brigade requirements. The recommended intent of this amendment should be as follows:

- 1) Institute the standard license condition for a Fire Protection Program
- 2) Remove requirements for fire protection systems from TS
- 3) Remove fire brigade staffing and training requirements from TS
- 4) Add administrative controls to TS that are consistent with those for other programs implemented by license condition

III. SAFETY IMPLICATIONS OF THE PROPOSED CHANGES

Operational Specification 3.4 was created to contain the fire protection requirements currently contained in the Technical Specifications. Information contained in the Fire Protection Technical Specification Bases are now included in the Operational Specification.

Compliance with the fire protection requirements will be assured by maintaining these requirements in the Operational Specification and in the FSAR. This change offers additional flexibility in updating and maintaining the fire protection program. The proposed changes relocate the requirements from the Technical Specifications to Operational Specification 3.4, while providing additional administrative controls in Specification 6.5.1.6(m). Since no reduction has been made to the technical content by this relocation, the relocation of the requirements is viewed as administrative in nature.

This proposed amendment merely relocates the fire protection program elements from the Technical Specifications to the Operational Specifications, while including additional references to the existing program in the FSAR. Operating limitations will continue to be imposed, and required surveillances will continue to be performed in accordance with written procedures and instructions auditable by the NRC. Fire protection program requirements remain an integral part of Indian Point 3 plant operation, regardless of location.

Although future proposed changes to the fire protection program elements previously located in the Technical Specifications will no longer be controlled by 10 CFR 50.90, proposed changes to the Fire Protection requirements relocated to the Operational Specifications will be evaluated by plant administrative procedures.

This submittal is consistent with the guidance in Generic Letters 86-10 and 88-12 and will not reduce the effectiveness of the Fire Protection Program.

IV. EVALUATION OF SIGNIFICANT HAZARDS CONSIDERATION

Consistent with the criteria of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based on the following information:

- (1) Does the proposed license amendment involve a significant increase in the probability or consequences of any accident previously evaluated?

Response:

This change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

This proposed amendment merely relocates the fire protection program elements from the Technical Specifications to the Operational Specifications

and the FSAR. No reduction in content is being made to the Technical Specification requirements that are being relocated. Operating limitations will continue to be imposed, and required surveillances will continue to be performed in accordance with written procedures and instructions auditable by the NRC.

Although future proposed changes to the fire protection program elements previously located in the Technical Specifications will no longer be controlled by 10 CFR 50.90, proposed changes to the Fire Protection requirements relocated to the Operational Specifications will be evaluated by plant administrative procedures.

Thus, programmatic controls will continue to assure that future proposed fire protection program changes will not create an unreviewed safety question.

- (2) Does the proposed license amendment create the possibility of a new or different kind of accident from any previously evaluated?

Response:

The possibility of an accident or malfunction of a different type than evaluated previously in the safety analysis report is not created.

This proposed amendment merely relocates the fire protection Technical Specification requirements from the Technical Specifications to the Operational Specifications. No reduction to the fire protection Technical Specification requirements is being made and thus the change does not create the possibility of a new or different accident from those previously evaluated.

As noted above, future changes to the requirements in the Operational Specifications will be evaluated by plant administrative procedures.

- (3) Does the proposed amendment involve a significant reduction in a margin of safety?

Response:

The margin of safety as defined in the bases for any technical specification is not reduced.

This proposed amendment does not involve a reduction to the approved fire protection program or Fire Protection Technical Specification requirements. The Technical Specification fire protection requirements are being relocated, with no reduction in content, to the Operational Specifications. Since there is no reduction in the requirements, there is no reduction in the margin of safety.

As noted above, proposed changes to the Fire Protection Technical Specification requirements relocated to the Operational Specifications will be evaluated by plant administrative procedures.

V. **IMPACT OF CHANGES**

These changes will not adversely impact the following:

ALARA Program
Security and Fire Protection Programs
Emergency Plan
FSAR and SER Conclusions
Overall Plant Operations and the Environment

Operating limitations will continue to be imposed, and required surveillances will continue to be performed in accordance with written procedures and instructions auditable by the NRC.

VI. **CONCLUSIONS**

The incorporation of these changes: a) will not increase the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report; b) will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the bases for any technical specification; d) does not constitute an unreviewed safety question; and e) involves no significant hazards considerations as defined in 10 CFR 50.92.

VII. **REFERENCES**

1. NRC Generic Letter 86-10, "Implementation of Fire Protection Requirements," dated April 24, 1986.
2. NRC Generic Letter 88-12, "Removal of Fire Protection Requirements from the Technical Specifications," dated August 2, 1988.
3. "Indian Point 3 Fire Protection Reference Manual," Revision 0, dated May 1, 1991.
4. "Fire Protection Plan for Indian Point 3 Nuclear Power Plant," Revision 0, dated June 30, 1993.
5. FSAR Sections 1.3 and 9.6.
6. SER dated, September 12, 1973 and supplements.
7. "Indian Point 3 Operational Specifications."

Attachment IV to IPN-94-047

**FSAR REVISION FOR THE
PROPOSED TECHNICAL SPECIFICATION AND OPERATING LICENSE CHANGES
TO RELOCATE FIRE PROTECTION TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT

Docket No. 50-286

DPR-64

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions ⁽¹⁾.

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

- Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings
- Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

- Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges
- Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions (1).

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2.4	Fire Detection System	9.6-21
9.6.2.5	Safe Shutdown Capability in Case of Fire	9.6-23
	Alternate Shutdown Capability	9.6-24
9.6.2.6	Emergency Lighting	9.6-27
9.6.2.7	Reactor Coolant Pump Oil Collection System	9.6-27
9.6.2.8	Fire Brigade (Manual Fire Fighting)	9.6-28
9.6.2.9	Fire Protection of Specific Plant Areas and Equipment	9.6-28
	Primary Auxiliary Building	9.6-28
	Elevations 15, 34, and 41 feet	9.6-28
	Elevation 55 feet	9.6-29
	Control Building	9.6-29
	Cable Spreading Room	9.6-29
	Battery Rooms	9.6-30
	Switchgear Room	9.6-30
	Control Room	9.6-30
	Electrical Tunnels	9.6-31

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions ⁽¹⁾.

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions (1).

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

- Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings
- Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

- Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges
- Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions ⁽¹⁾.

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

IP3
FSAR UPDATE

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
				<u>CHAPTER 10</u>	
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

- Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings
- Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

- Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges
- Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions (1).

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions (1).

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions (1).

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

- Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings
- Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

- Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges
- Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions ⁽¹⁾.

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

IP3
FSAR UPDATE

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.6.2	Fire Protection	9.6-8
9.6.2.1	Design Bases	9.6-8
	Fire Protection Criteria	9.6-9
	Applicable Codes and Standards During Design Phase of the Plant	9.6-10
	Water Supplies	9.6-10
	Yard Mains and Hydrants	9.6-10
	Sprinkler and Water Spray Systems	9.6-10
	Portable Fire Extinguishers and Inside Hose Connections	9.6-10
	Special Protection	9.6-10
	Materials	9.6-11
	Pipe and Fittings	9.6-11
	Valves	9.6-11
	Hydrants	9.6-11
	Fittings for Diesel Generator System	9.6-11
9.6.2.2	Fire Areas and Fire Area Boundaries	9.6-12
	Fire Barriers	9.6-12a
	Fire Barrier Penetration Protection	9.6-13
	Fire Doors	9.6-13
	Fire Dampers	9.6-14
	Electrical Cable and Mechanical Penetration Seals	9.6-14
	Fire Wraps and Radiant Energy Shields	9.6-14
9.6.2.3	Fire Suppression Systems	9.6-15
	Water Systems	9.6-15
	Gas Fire Suppression Systems	9.6-19
	Foam Fire Suppression Systems	9.6-19
	Portable Fire Extinguishers	9.6-19
	Fire Protection System Leak Detection	9.6-20

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
F9.3-2A	4	7/93			
F9.3-2B	3	7/92	F9.5-7	0	7/82
			F9.5-8	0	7/82
9.4-1	0	7/82	F9.5-9	0	7/82
9.4-2	0	7/82			
9.4-3	0	7/82	9.6-1	6	7/93
9.4-4	0	7/82	9.6-2	4	7/91
9.4-5	0	7/82	9.6-3	3	7/91
9.4-6	0	7/82	9.6-4	4	7/91
9.4-7	4	7/90	9.6-5	3	7/90
9.4-8	3	7/88	9.6-6	4	7/91
T9.4-1	0	7/82	9.6-7	4	7/91
T9.4-2, Sh. 1	2	7/92	9.6-8	4	7/93
T9.4-2, Sh. 2	1	7/91	9.6-9	2	7/88
T9.4-3	0	7/82	9.6-10	4	7/93
F9.4-1	5	7/93	9.6-11	2	7/88
F9.4-2	1	7/85	9.6-12	4	4/94
			9.6-12a	0	4/94
9.5-1	1	7/91	9.6-13	2	7/88
9.5-2	0	7/82	9.6-14	2	7/88
9.5-3	0	7/82	9.6-15	3	7/91
9.5-4	0	7/82	9.6-16	2	7/88
9.5-5	0	7/82	9.6-17	4	7/91
9.5-6	0	7/82	9.6-18	4	7/91
9.5-7	0	7/82	9.6-19	3	7/91
9.5-8	1	7/91	9.6-20	3	7/91
9.5-9	1	7/88	9.6-21	4	7/91
9.5-10	1	7/91	9.6-22	2	7/88
9.5-11	1	7/91	9.6-23	2	7/88
9.5-12	0	7/82	9.6-24	2	7/88
9.5-13	0	7/82	9.6-25	2	7/88
9.5-14	0	7/82	9.6-26	2	7/88
9.5-15	2	7/93	9.6-27	4	7/91
9.5-16	1	7/87	9.6-28	2	7/88
9.5-17	0	7/82	9.6-29	2	7/88
9.5-18	0	7/82	9.6-30	2	7/88
9.5-19	0	7/82	9.6-31	2	7/88
9.5-20	1	7/91	9.6-32	4	7/92
9.5-21	0	7/82	9.6-33	2	7/88
9.5-22	0	7/82	9.6-34	2	7/88
9.5-23	0	7/82	9.6-35	2	7/88
9.5-24	1	7/86	9.6-36	2	7/88
T9.5-1, Sh. 1	1	7/91	9.6-37	4	7/91
T9.5-1, Sh. 2	0	7/82	9.6-38	4	7/93
F9.5-1	0	7/82	9.6-39	4	7/93
F9.5-2	2	7/93	9.6-40	4	7/93
F9.5-3	0	7/82	9.6-41	5	7/93
F9.5-4	0	7/82	9.6-42	3	7/91
F9.5-5	0	7/82	9.6-43	3	7/91
F9.5-6	0	7/82	9.6-44	4	7/91

IP3
FSAR UPDATE

STATUS OF FSAR PAGES, TABLES and FIGURES

<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>	<u>Page No.</u>	<u>Rev. No.</u>	<u>Date</u>
9.6-45	2	7/88	9.8-3	0	7/82
9.6-46	1	7/89	T9.8-1	0	7/82
9.6-47	1	7/89			
9.6-48	2	7/93	9.9-1	0	7/82
9.6-49	3	7/93	9.9-2	0	7/82
9.6-50	1	4/94	9.9-3	0	7/82
T9.6-1, Sh. 1	4	7/93	9.9-4	0	7/82
T9.6-1, Sh. 2	4	7/91	9.9-5	1	7/87
T9.6-2	3	7/91	9.9-6	1	7/87
T9.6-2A, Sh. 1	1	7/93	9.9-7	1	7/87
T9.6-2A, Sh. 2	0	7/91	F9.9-1	1	7/86
T9.6-2A, Sh. 3	1	7/93	F9.9-2	1	7/86
T9.6-2A, Sh. 4	0	7/91			
T9.6-3	3	7/90	9.10-1	0	7/82
T9.6-4	deleted				
T9.6-5	deleted		9.11-1	1	7/87
T9.6-6	deleted				
F9.6-1	deleted				
F9.6-1A	3	7/93			
F9.6-1B	3	7/93	10.1-1	1	7/91
F9.6-1C	2	7/93	10.1-2	2	7/91
F9.6-2	deleted		T10.1-1, Sh. 1	0	7/82
F9.6-2A	3	7/93	T10.1-1, Sh. 2	0	7/82
F9.6-2B	3	7/93			
F9.6-3	3	7/93	10.2-1	2	7/88
F9.6-4	deleted		10.2-2	1	7/88
F9.6-4A	3	7/93	10.2-3	1	7/88
F9.6-4B	3	7/93	10.2-4	2	7/91
F9.6-5	deleted		10.2-5	3	7/93
F9.6-6	deleted		10.2-6	2	7/90
F9.6-7	deleted		10.2-7	2	7/90
F9.6-8	deleted		10.2-8	1	7/88
F9.6-9	deleted		10.2-9	3	7/91
F9.6-9A	5	7/93	10.2-10	3	7/93
F9.6-9B	3	7/93	10.2-11	4	7/93
F9.6-10	deleted		10.2-12	4	7/93
F9.6-11	deleted		10.2-13	4	7/93
F9.6-12	1	7/88	10.2-14	3	7/92
F9.6-13	5	7/93	10.2-15	2	7/91
F9.6-14	0	7/82	10.2-16	2	7/91
F9.6-15	2	7/90	10.2-17	3	7/91
F9.6-16	4	7/93	10.2-18	3	7/91
F9.6-17	6	7/93	10.2-19	3	7/91
			10.2-20	4	7/93
9.7-1	0	7/82	10.2-21	3	7/91
9.7-2	0	7/82	10.2-22	3	7/91
			10.2-23	3	7/91
9.8-1	1	7/90	10.2-24	5	7/91
9.8-2	1	7/90	10.2-25	4	7/91

CHAPTER 10

IP3
FSAR UPDATE

Materials

The materials used on the Indian Point 3 Fire Protection System are as follows:

Pipe and Fittings

Underground: Schedule 40 steel coated and wrapped, cement lined, welded joints; welded fittings

Aboveground: Schedule 40 steel, cement lined, welded joints, welded fittings

Valves

Underground: FM approved, 175 lbs working pressure, ductile iron, bronze mounted, flanges

Aboveground: Gate, screwed, 150 lbs working pressure

Hydrants

FM approved, 175 lbs working pressure, ductile iron

Fittings for Diesel Generator System

Malleable iron

On February 17, 1981, 10 CFR 50.48 and Appendix R became effective. Appendix R to 10 CFR 50 established fire protection features required to satisfy Criteria 3 of Appendix A to 10 CFR 50 with respect to certain generic issues related to nuclear power plants licensed to operate prior to January 1, 1979. As a minimum, 10 CFR 50.48 required all licensees to conform to the requirements of Section III.G, III.J, and III.O, of Appendix R which address fire protection of safe shutdown capability, emergency lighting, and reactor coolant pump oil collection systems, respectively. Other sections of Appendix R apply to those licensees who had open items remaining from the BTP 9.5-1, Appendix A review. The review of Indian Point 3 to BTP 9.5-1, Appendix A was completed, as documented in the NRC Safety Evaluation Reports dated March 6, 1979 and May 2, 1980.

A reevaluation of Indian Point 3 against the requirements of Section III.G of Appendix R to 10 CFR 50 was completed in August, 1984. The report submitted to the NRC on August 16, 1984 describes the bases on which Indian Point 3 conforms to Section III.G of Appendix R. The report provides a historical chronology of correspondence between the NRC and the Authority on Appendix R compliance by summarizing all pertinent documentation submitted to the NRC in response to 10 CFR 50.48 and Appendix R through August, 1984.

IP3
FSAR UPDATE

The Appendix R Reevaluation was supplemented September 19, 1985 and included new exemptions to Section III.G. By letter dated June 14, 1985, an exemption from the requirements of Section III.J was requested. Additional information was provided by letters dated March 15, 1985 and September 10, 1986. By Safety Evaluation dated January 7, 1987, the NRC completed their review of the Appendix R Reevaluation and granted certain exemptions ⁽¹⁾.

The Fire Protection Reference Manual (FPRM) which was issued on May 1, 1991 is a summary document which describes the method of compliance, as well as providing an explanation of the organization, responsibilities, and administrative controls which comprise the Fire Protection Program for the Indian Point 3 Nuclear Power Plant.

The FPRM has been prepared to assist in accomplishing the following objectives:

- Adhere to the requirements of Appendix R to 10 CFR 50.
- Maintain all commitments made by the New York Power Authority relative to Appendix A to BTP 9.5-1, and Appendix R.
- Describe plant systems and procedures required to safely shutdown and cooldown the plant, in the event of a fire in any plant area.
- Consolidate Fire Protection information in one location.
- Identify Fire Protection/Appendix R commitments and consolidate these in one location.
- Provide an updated Fire Hazards Analysis.
- Facilitate identification of Fire Protection equipment and safe shutdown components.

The Fire Protection Program Plan as required by 10 CFR 50.48 is a separate controlled document entitled, "Fire Protection Plan for Indian Point 3 Nuclear Power Plant." Issued on June 30, 1993, the Program Plan discusses the program purpose, design, implementation and maintenance. It states the fire protection objectives and defines the program bases and key elements.

9.6.2.2 Fire Areas and Fire Area Boundaries

For the purposes of establishing compliance 10 CFR 50.48 and Appendix R, Indian Point 3 has been divided into six distinct fire areas with physical boundaries. An additional fire area, the yard area, has also been defined and includes the areas exterior to the plant structures. The six defined fire areas are:

- 1) Containment
- 2) Primary Auxiliary Building

- 3) Electrical Tunnels
- 4) Control Building
- 5) Turbine Building
- 6) Auxiliary Feedwater Pump Room

There are 109 fire zones contained within the six defined fire areas at Indian Point 3.

Relief from the requirements of Appendix R for the above listed fire areas is described in detail in Reference (1).

Fire Barriers

Substantial fire barriers have been provided throughout the plant. An evaluation including a fire hazards analysis, concluded that the basic wall, floor and ceiling structures bounding each fire area have adequate fire resistance to prevent the spread of an unsuppressed fire through the barriers. The required rating of each barrier has been established based on the combustible loading and fire severity that is present on either side of the barrier as well as the function of the barrier; i.e., on exterior wall or a barrier separating defined fire areas. Generally, the rating of a fire barrier does not consider the presence of any fire detection or suppression systems on either side of the barrier.

Walls, specifically designed as fire barriers include the following:

- 1) Reinforced concrete fire barrier walls between main transformers and in some areas between main transformers and the Turbine Building. In addition, the main transformer area has reinforced concrete oil barriers below grade with broken stone fill to catch oil from transformers in the event of a spill or rupture.

Health Physics Network (HPN) Line

This line is part of a network that includes all nuclear power plants, the NRC Regional Office and the NRC Operations Headquarters in Bethesda, Maryland. In the event of an emergency at the site, either the NRC Regional Office or Headquarters may decide to establish a direct telephone link to the licensee's dose assessment team. At such a time, the HPN line will be the primary means of communicating health physics and dose assessment information from the licensee to the NRC. The HPN is a restricted network and should not be used by non-government employees at any time unless needed to report a significant event when both the line and the commercial telephone lines are out of service. HPN lines are located in the NRC Office, OSC, and EOF. These lines are all tied into the same loop and therefore can be used as party lines.

RECS Line Telephone Network

The Radiological Emergency Communication System (RECS) is a dedicated line which connects the Control Rooms of Indian Point 2 and Indian Point 3 with the EOF, AEOF, the County Emergency Operation Centers and warning points within the 10 mile Emergency Planning Radius, the City of Peekskill, and the New York State Emergency Centers in Albany and Poughkeepsie (Southern District Office of Disaster Preparedness).

The RECS Line is a multipoint conferencing circuit with one drop at each of the above mentioned locations and is available 24 hours a day, 7 days a week.

References:

- 1) Safety Evaluation dated January 7, 1987 from S.A. Varga, Director - Project Directorate #3, Division of PWR Licensing - A, USNRC, to J.C. Brons, New York Power Authority.
- 2) Fire Protection Reference Manual, Volumes 1 to 4.
- 3) Fire Protection Plan for Indian Point 3 Nuclear Power Plant.
- 4) Operational Specification Manual.

Attachment V to IPN-94-047

**PROPOSED OPERATIONAL SPECIFICATION 3.4.
PROPOSED TECHNICAL SPECIFICATION AND OPERATING LICENSE CHANGES
TO RELOCATE FIRE PROTECTION TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT

Docket No. 50-286

DPR-64

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

F. Fire Water Tanks inoperable (contain less than 300,000 gallons each).	F.1 Restore a minimum available water volume of 300,000 gallons in each of the two (2) Fire Water Tanks for fire protection purposes.	7 days
	<u>OR</u>	
	F.2 Submit a Special Report to the Commission outlining the plans and procedures to be used for restoring the inoperable equipment to OPERABLE status.	30 days

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
<u>Testing Requirements</u>		
SR 3.4.1.1	<u>Fire Water Storage Tanks Minimum Water Volume.</u>	once/week
SR 3.4.1.2	<u>Main Fire Pump Operability -</u> Each pump operating for at least 15 minutes.	once/month
SR 3.4.1.3	<u>Valve Position Check</u> Verify that each valve (manual, power operated or automatic) in the flow path necessary for proper functioning of any portion of this system required for protection of safe shutdown systems is in its correct position. If the valve has an installed monitoring system, the valve can be checked via that monitoring system.	once/month

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.1.4	<p><u>Valve Cycling Test</u> - Exercise each valve necessary for proper functioning of any portion of this system required for protection of safe shutdown systems through at least one complete cycle.</p> <p>(i) Valves testable with plant on-line</p> <p>(ii) Valves not testable with plant on-line</p>	<p>once/12 months</p> <p>once/18 months</p>
SR 3.4.1.5	<p><u>System Functional Test</u> - Verify proper actuation of this system throughout its operating sequence, and</p> <p>(i) Verify that each automatic valve in the flow path actuates to its correct position, and</p> <p>(ii) Verify that each fire suppression pump starts (sequentially) to maintain fire water suppression system pressure.</p>	once/18 months
SR 3.4.1.6	<p><u>Main Fire Pump Capacity and System Flow Check</u> - Verify that each pump develops a flow of 2350 gpm at a system head of 250 feet.</p>	once/18 months
SR 3.4.1.7	<p><u>System Flow Test</u> - Perform a flow test in accordance with Chapter 5, Section 11 of the Fire Protection Handbook, 14th Edition, published by the National Fire Protection Association for any portion of this system required for protection of safe shutdown systems.</p>	once/3 years
SR 3.4.1.8	<p><u>System Flush</u> - (May be done Concurrent with System Flow Test).</p>	once/3 years
<u>Fire Pump Diesel Engine Testing Requirements</u>		
SR 3.4.1.9	<p>Verify that the Fuel Oil Storage Tank contains at least 120 gal. of fuel.</p>	once/month
SR 3.4.1.10	<p>Test diesel fuel sample to verify conformance with diesel manufacturers recommended minimum requirements for viscosity, water, and sediment.</p>	once/3 months

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.1.11	Verify diesel starts from ambient conditions and operates for at least 30 minutes (May be done concurrent with 15 minute diesel pump test).	once/month
SR 3.4.1.12	Conduct a thorough inspection of the diesel in accordance with procedures prepared in conjunction with the manufacturers' recommendations and verify that the diesel starts from ambient conditions on the auto-start signal and is operated for greater than or equal to 30 minutes while loaded with the fire pump.	once/18 months
<u>Fire Pump Diesel Starting 24-Volt Battery Bank and Charger Requirements:</u>		
SR 3.4.1.13	Verify electrolyte level of each battery is above the plates and that the overall battery voltage is greater than or equal to 24 volts. Also verify that the specific gravity is appropriate for continued service of the battery.	once/month
SR 3.4.1.14	Verify that the batteries and battery racks show no visual indication of physical damage or abnormal deterioration and that the battery terminal connections are clean, tight and free of corrosion.	once/18 months

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

- B 3.4.0 Fire Protection and Detection Systems
- B 3.4.1 High Pressure Water Fire Protection System

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. In addition to verifying operability, the surveillance requirements will identify for corrective action any conditions which could prevent any portion of the system from performing its intended function. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCS 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND	The High Pressure Water Fire Protection System is required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
------------	--

APPLICABLE SAFETY ANALYSIS	The High Pressure Water Fire Protection System is required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
----------------------------------	--

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

- 3.4.0 Fire Protection and Detection Systems
- 3.4.2 Fire Protection Spray and/or Sprinkler Systems

LCO 3.4.2 The following Fire Protection Spray and/or Sprinkler Systems shall be OPERABLE:

- a. Electrical Tunnel Fire Protection Water Sprinkler System (El-34' and El-43').
- b. Diesel Generator Building Water Sprinkler System (El-15' in D.G. Building).
- c. Containment Fan Cooler Charcoal Filter Dousing System (El-68' in Containment).

APPLICABILITY: Whenever equipment protected by the Spray/Sprinkler System is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Spray and/or Sprinkler Systems Inoperable	A.1 Establish a continuous fire watch with backup fire suppression equipment for the accessible unprotected area(s). <u>AND</u>	1 hour
	A.2.1 Restore the inoperable spray and/or sprinkler system(s) to OPERABLE status. <u>OR</u>	14 days
	A.2.2 Submit a Special Report to the Commission outlining the cause of inoperability and the plans for restoring the system(s) to OPERABLE status.	30 days

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SURVEILLANCE REQUIREMENTS

NOTE:

The surveillance requirements SR 3.4.2.1 through 3.4.2.6 shall not apply to self-actuated type spray nozzles which are capable of only one actuation and cannot be periodically cycled or tested. The surveillance requirement for these self-actuated spray nozzles is SR 3.4.2.7.

	SURVEILLANCE	FREQUENCY
SR 3.4.2.1	Verify that each valve (manual, power operated or automatic) in the flow path and which is accessible is in the correct position.	once/month
SR 3.4.2.2	<p><u>Valve Cycling Test</u> - Exercise each valve necessary for proper functioning of any portion of this system required for protection of safe shutdown systems through at least one complete cycle:</p> <p>(i) Valves testable with plant on line.</p> <p>(ii) Valves not testable with plant on line.</p>	<p>once/12 months</p> <p>once/18 months</p>
SR 3.4.2.3	<u>System Functional Test</u> - Includes simulated automatic actuation of spray system and verification that automatic valves in the flow path actuate to their correct position.	once/18 months
SR 3.4.2.4	<u>Spray Header Visual Inspection</u> - Verify integrity.	once/18 months
SR 3.4.2.5	<u>Visual Inspection of Each Spray Nozzle</u> - Verify that each nozzles spray area is unobstructed.	once/18 months
SR 3.4.2.6	<u>Air Flow Test</u> - Perform air flow test through each open spray/sprinkler header and verify each open spray/sprinkler nozzle is unobstructed.	once/3 years

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.2.7	Self-actuated spray nozzles shall be visually inspected to verify that no nozzle damage exists and that the nozzles are unobstructed.	once/18 months
------------	---	----------------

- B 3.4.0 Fire Protection and Detection Systems
- B 3.4.2 Fire Protection Spray and/or Sprinkler Systems

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. In addition to verifying operability, the surveillance requirements will identify for corrective action any conditions which could prevent any portion of the system from performing its intended function. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCS 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND	The Fire Protection Spray and/or Sprinkler Systems is required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
-------------------	--

APPLICABLE SAFETY ANALYSIS	The Fire Protection Spray and/or Sprinkler Systems is required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
-----------------------------------	--

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

3.4.0 Fire Protection and Detection Systems

3.4.3 Penetration Fire Barriers

- LCO 3.4.3 The following Penetration Fire Barriers shall be functional:
- a. Penetration fire barriers between the central control room floor and the cable spreading room.
 - b. Penetration fire barriers between the 480 V switchgear room and the cable spreading room.
 - c. Penetration fire barriers separating the diesel generator compartments from each other and from the Control Building.
 - d. Penetration fire barriers separating the Control Building from the Turbine Building.
 - e. Penetration fire barriers separating the Cable Spreading Room from the Electrical Tunnels.

APPLICABILITY: Whenever equipment protected by the Penetration Fire Barriers is required to be OPERABLE.

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
<p>A. Penetration Fire Barriers not functional</p>	<p>A.1.1 Verify the operability of fire detectors on at least one side of the non-functional fire barrier and establish an hourly fire watch patrol,</p> <p style="text-align: center;"><u>OR</u></p>	<p>1 hour</p>
	<p>A.1.2 Establish a continuous fire watch on at least one side of the affected fire barrier penetration</p> <p style="text-align: center;"><u>AND</u></p>	<p>1 hour</p>
	<p>A.2.1 Restore the non-functional fire barrier penetration(s) to functional status</p> <p style="text-align: center;"><u>OR</u></p>	<p>7 days</p>
	<p>A.2.2 Submit a report to the Commission outlining the action taken, the cause of the non-functional penetration and plans for restoring the fire barrier penetration(s) to functional status.</p>	<p>30 days</p>

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.3.1	The penetration fire barriers listed in specification 3.4.3 shall be verified to be functional by visual inspection.	once/18 months <u>AND</u> prior to declaring a fire penetration barrier functional following repairs or maintenance.

B 3.4.0 Fire Protection and Detection Systems
B 3.4.3 Penetration Fire Barriers

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. In addition to verifying operability, the surveillance requirements will identify for corrective action any conditions which could prevent any portion of the system from performing its intended function. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCS 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND	The Penetration Fire Barriers are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
-------------------	--

APPLICABLE SAFETY	The Penetration Fire Barriers are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."
--------------------------	--

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

3.4.0 Fire Protection and Detection Systems

3.4.4 Fire Detection Systems

LCO 3.4.4 As a minimum, the fire detection instrumentation for each location shown in Table 3.4.4-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment in that location is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. With less than the minimum number of fire detection instruments operable	A.1 Establish a fire watch patrol, where accessibility permits, to inspect the location(s) with less than the minimum OPERABLE instrumentation. <u>AND</u>	1 hour <u>AND</u> once/hour
	A.2.1 Restore the minimum instrumentation required by Table 3.4.4-1 to OPERABLE status. <u>OR</u>	14 days
	A.2.2 Submit a Special Report to the Commission outlining the cause of the malfunction and the plans for restoring the instrumentation to OPERABLE status.	30 days

SURVEILLANCE REQUIREMENTS

The operability of the fire detection instruments utilized in satisfying specification 3.4.4.A including the actuation of appropriate alarms (Channel Functional Test) shall be verified as follows:		
	SURVEILLANCE	FREQUENCY
SR 3.4.4.1	<u>Smoke Detectors</u> -	once/6 months

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.4.2	<u>Heat Detectors -</u> (i) Those associated with the Diesel Generator Building (item 5 in Table 3.4.4-1). (ii) Those associated with the Electrical Tunnels (item 3 in table 3.4.4-1). iii) Those associated with the Containment Fan Cooler Units (item 6 in Table 3.4.4-1).	once/6 months once/12 months once/18 months
SR 3.4.4.3	Flame Detectors	once/6 months

- B 3.4.0 Fire Protection and Detection Systems
- B 3.4.4 Fire Detection Systems

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCS 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND The Fire Detection Systems are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."

APPLICABLE SAFETY ANALYSIS The Fire Detection Systems are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

TABLE 3.4.4-1 (Sheet 1 of 2)

FIRE DETECTION INSTRUMENTS			
<u>Instrument Location</u>	<u>Minimum Instruments</u>	<u>Operable</u>	
	<u>Heat</u>	<u>Smoke</u> (ionization detectors)	<u>Flame</u> (Ultra violet)
1. Cable Spreading Room (Control Building: El-33')		7	
2. Switchgear Room (Control Building: El-15')		7	
3. Electrical Tunnels Upper (El-43') Lower (El-34')	69* 66*	4 4	
4. Electrical Penetration Areas: Upper (Fan House: El-46') Lower (Fan House: El-34')	33* 17*	3 4	
5. Diesel Generator Building (El-15')	4 per D.G.		
6. Containment Fan Cooler Units (Containment: El-68')	4 per FC Unit		
7. Primary Auxiliary Building a. Corridor: El 55' b. MCC Nos. 36A, 36B, 37, El 55' (Underfloor Area) c. CS Pump Area El 41' d. Component Cooling Pump Area e. RHR Pumps El 15' f. Charging Pump Rooms		7 5 2 4 1 per RHR Pump cubicle 2	
8. Aux. Feed Pump Building		1	
9. Battery Room No. 31 Battery Room No. 32 Battery Area 33			1 1 1
10. Fan House: El 41' and 51' (Pipe Penetration Area)		5	

*Temperature Detector/Trip Devices

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

TABLE 3.4.4-1 (Sheet 2 of 2)

FIRE DETECTION INSTRUMENTS			
<u>Instrument Location</u>	<u>Minimum</u>	<u>Instruments</u>	<u>Operable</u>
	<u>Heat</u>	<u>Smoke</u> (ionization detectors)	<u>Flame</u> Ultra violet)
11. Control Room Supervisory Panel Flight Panel Ceiling Area Ductwork	1	2 1 8 3	
12. Containment Building		4	
13. Intake Structure Building/ Service Water Pump Enclosure		22	

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

3.4.0 Fire Protection and Detection Systems

3.4.5 Fire Hose Stations

LCO 3.4.5 The fire hose stations shown in Table 3.4.5-1 shall be OPERABLE.

APPLICABILITY: Whenever equipment in the area is required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Any fire hose stations inoperable.	A.1.1 Route an additional equivalent capacity hose to the affected area(s) from an operable hose station. <u>OR</u>	1 hour
	A.1.2 Make available suitable portable fire fighting equipment at the location(s). <u>AND</u>	1 hour
	A.2.1 Restore the fire hose station(s) to OPERABLE status. <u>OR</u>	14 days
	A.2.2 Submit a Special Report to the Commission outlining the cause of the malfunction and the plans for restoring the fire hose station to OPERABLE status.	30 days

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.5.1	<u>Visual Inspection Test</u> - Visual inspection of the hose stations to assure all required equipment is at the station.	once/month

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.5.2	Hose Removal Check - Removal of the hose for inspection and replacement of all degraded gaskets in couplings.	once/18 months
SR 3.4.5.3	Hose Flow Test - Partial opening of each hose station valve to verify valve operability and no flow blockage.	once/3 years
SR 3.4.5.4	Hose Hydrostatic Test - Conduct a hose hydrostatic test at a pressure at least 50 psig greater than the maximum pressure available at that hose station.	once/3 years

- B 3.4.0 Fire Protection and Detection Systems
- B 3.4.5 Fire Hose Stations

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCSB 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND The Fire Hose Stations are required by Appendix A of BTP APCSB 9.5-1 "Fire Protection for Nuclear Power Plants."

APPLICABLE SAFETY ANALYSIS The Fire Hose Stations are required by Appendix A of BTP APCSB 9.5-1 "Fire Protection for Nuclear Power Plants."

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

TABLE 3.4.5-1

FIRE HOSE STATIONS		
<u>Building</u>	<u>Location</u>	<u>Elevation</u>
Turbine Building	Control Bldg. Entrance	15'
Turbine Building	Control Bldg. Entrance	33'
Turbine Building	Control Bldg. Entrance	53'
Aux. Feed Pump Bldg.	Outside Stairwell	18' - 6"
Primary Aux. Bldg.	West Stairwell	55'
Primary Aux. Bldg.	West Stairwell	34'
Primary Aux. Bldg.	West Stairwell	15'
Primary Aux. Bldg.	East Stairwell	73'
Primary Aux. Bldg.	East Stairwell	55'
Primary Aux. Bldg.	East Stairwell	41'
Primary Aux. Bldg.	West Side of Bldg.	73'
Intake Structure Bldg.	North End of Bldg.	15'
Intake Structure Bldg.	South End of Bldg.	15'

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

- 3.4.0 Fire Protection and Detection Systems
- 3.4.6 Yard Fire Hydrants and Hydrant Hose Houses

LCO 3.4.6 The yard fire hydrants and associated hydrant hose houses shown in Table 3.4.6-1 shall be OPERABLE.

APPLICABILITY: Above cold shutdown.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. Yard fire hydrant or associated hydrant hose house inoperable.	A.1.1 Have sufficient additional lengths of 2 1/2 inch diameter hose located in an adjacent operable hydrant hose house to provide service to the unprotected area(s).	1 hour
	<u>AND</u>	
	A.1.2 Restore the inoperable yard hydrant to service.	14 days
	<u>OR</u>	
	A.2 Submit a Special Report to the Commission outlining the cause of inoperability and the plans for restoring the hydrant to OPERABLE status.	30 days

SURVEILLANCE REQUIREMENTS

SURVEILLANCE	FREQUENCY
SR 3.4.6.1 Visually inspect those hose houses associated with hydrants listed under Table 3.4.6-1 in order to assure that all required equipment is inside.	once/month
SR 3.4.6.2 Visually inspect those hydrants listed under Table 3.4.6-1 to verify that the hydrant barrel is dry and undamaged.	once/6 months (Spring/Fall)

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SR 3.4.6.3	For those hydrants serving safety related areas, specifically Hydrants #31, 32, 35, 36, 38, 39 and 310, flow check each hydrant to demonstrate its operability.	once/1 year
SR 3.4.6.4	Conduct a hose hydrostatic test at a pressure at least 50 psi greater than the maximum pressure available at any yard hydrant. Also, inspect all gaskets and replace any degraded gaskets in the couplings.	once/1 year

B 3.4.0 Fire Protection and Detection Systems

B 3.4.6 Yard Fire Hydrants and Hydrant Hose Houses

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCS 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto.

BACKGROUND The Yard Fire Hydrants and Hydrant Hose Houses are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."

APPLICABLE SAFETY ANALYSIS The Yard Fire Hydrants and Hydrant Hose Houses are required by Appendix A of BTP APCS 9.5-1 "Fire Protection for Nuclear Power Plants."

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

TABLE 3.4.6-1

YARD FIRE HYDRANT AND ASSOCIATED HYDRANT HOSE HOUSES	
<u>Location</u>	<u>Hydrant No.</u>
1. Screenwell Area	#31 or #32
2. Aux. Feed Pump Bldg.	#35
3. Primary Aux. Bldg.	#36, 38, 39
4. Diesel Gen Bldg.	#310

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

3.4.0 Fire Protection and Detection Systems

3.4.7 CO₂ Fire Protection System

LCO 3.4.7 As a minimum, one CO₂ Storage Tank shall be available with a minimum level of 60% and a minimum pressure of 275 psi and the CO₂ System Fire Protection available to supply the following safety related areas:

- a. Control Building (EL-33') - Cable Spreading Room
- b. Control Building (EL-15') - Switchgear Room
- c. Diesel Generator Building (EL-15')

APPLICABILITY: Whenever equipment in these areas are required to be OPERABLE.

ACTIONS

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. CO ₂ Storage Tank inoperable or CO ₂ System Fire Protection unavailable.	A.1.1 Establish a continuous fire watch with backup fire suppression equipment for the accessible unprotected area(s). <u>AND</u>	1 hour
	A.1.2 Restore CO ₂ Fire Protection System equipment to OPERABLE status. <u>OR</u>	14 days
	A.2 Submit a Special Report to the Commission outlining the cause of inoperability and the plans for restoring the CO ₂ system to OPERABLE status.	30 days

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.4.7.1	Verify Level and Pressure Indication for CO ₂ Supply Units 3-1 or 3-2 for that unit which is lined up to the Control and Diesel Generator Buildings.	once/week
SR 3.4.7.2	Verify that each valve (manual, power operated or automatic) in the flow path is in its correct position.	once/month
SR 3.4.7.3	System Functional Test: Verify that system valves and associated ventilation dampers and fire door release mechanisms actuate upon receipt of a simulated actuation signal.	once/18 months
SR 3.4.7.4	Verify flow from nozzles during a "Puff Test."	once/18 months

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

- B 3.4.0 Fire Protection and Detection Systems
- B 3.4.7 CO₂ Fire Protection System

BASES

Containment is not considered normally accessible during plant operation.

These specifications are established to assure the operability and provide surveillance requirements of fire protection and detection systems provided to protect equipment utilized for safe shutdown of the unit. The fire protection and detection systems installed at IP3, conform to Appendix A of Branch Technical Position (BTP) APCSB 9.5-1 "Fire Protection for Nuclear Power Plants", as approved by the NRC Regulatory Staff on March 6, 1979 as Amendment No. 24 to facility operating license No. DPR-64, and supplements thereto. Also, the CO₂ System Fire Protection availability by definition shall be interpreted to mean with the system in either the automatic or manual mode of operation with the automatic mode as the primary mode of operation.

BACKGROUND The CO₂ Fire Protection System is required by Appendix A of BTP APCSB 9.5-1 "Fire Protection for Nuclear Power Plants."

APPLICABLE SAFETY ANALYSIS The CO₂ Fire Protection System is required by Appendix A of BTP APCSB 9.5-1 "Fire Protection for Nuclear Power Plants."

**INDIAN POINT 3
OPERATIONAL SPECIFICATIONS**

- 3.4.0 Fire Protection and Detection Systems
- 3.4.8 Fire Brigade Staffing and Training

APPLICABILITY: At All Times

ACTIONS

<u>CONDITION</u>	<u>REQUIRED ACTION</u>	<u>COMPLETION TIME</u>
A. <u>Fire Brigade Staffing</u>	<p>A.1 Fire Brigade of at least five members shall be maintained on site.</p> <p>-----</p> <p style="text-align: center;">NOTE:</p> <p>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.</p> <p>During periods of cold shutdown the Fire Brigade will exclude two members of the minimum shift crew.</p> <p>-----</p>	NA
B. <u>Fire Brigade Training</u>	B.1 A training program for the Fire Brigade shall be maintained under the direction of the Fire Protection and Safety Manager and shall meet or exceed the requirements of Section 27 of NFPA Code-1976 with the exception of the training program schedule	NA
C. Required Action and Completion Time of A or B not met.	C.1 Submit a Special Report to the Commission outlining the plans and procedures to be used for restoring the Fire Brigade Staffing and Training to meet the above requirements.	30 days

Attachment VI to IPN-94-047

**COMMITMENTS FOR THE
PROPOSED TECHNICAL SPECIFICATION AND OPERATING LICENSE CHANGES
TO RELOCATE FIRE PROTECTION TECHNICAL SPECIFICATIONS**

New York Power Authority

INDIAN POINT 3 NUCLEAR POWER PLANT

Docket No. 50-286

DPR-64

LIST OF COMMITMENTS MADE IN LETTER IPN-94-047

COMMITMENT #	DESCRIPTION	DUE DATE
IPN-94-047-01	Comply with the requirements of Operational Specification 3.4, "Fire Protection and Detection Systems"	Currently performed by Technical Specifications; 30 days after approval of this technical specification change, this item will be required by Operational Specification 3.4.
IPN-94-047-02	Update Plant Procedures to reflect the relocation of Fire Protection requirements.	30 days from approval of this proposed technical specification change.
IPN-94-047-03	Revise the Operational Specifications Manual to include all Fire Protection equipment credited for Appendix R compliance.	Prior to startup from the current outage.