CHAPTER 12

CONDUCT OF OPERATIONS

12.1 ORGANIZATIONAL STRUCTURE AND RESPONSIBILITIES

Entergy as the sole owner and operator of Indian Point 3 has assumed full responsibility for its operation and engineering technical support. Prior to March 10, 1978, this responsibility was contracted to the Consolidated Edison Company as agent for the Authority. Although not directing the operation and maintenance during this period, the Authority maintained technical cognizance by residence at the plant, attendance at the Con Edison's Station Nuclear Safety Committee meetings, membership on the Con Edison's Nuclear Facilities Safety Committee, providing engineering support and design review, selection of equipment, and involvement in licensing efforts related to Indian Point 3. This overview function was maintained in order to provide self-assurance of safe and efficient operation in conformance with NRC regulatory requirements and the facility licensing commitments. On November 21, 2000, Entergy became the sole owner and operator of Indian Point 3.

12.1.1 Entergy Nuclear Operations (ENO) Organization

Entergy Nuclear Operations has prime responsibility for all planned and systematic activities necessary to assure the safe, reliable and efficient operation of Entergy's nuclear power facilities. The expertise in this unit includes nuclear, mechanical, electrical and civil/structural engineering disciplines as well as operations, maintenance, training, core physics and fuel management. The original plant designer, the NSSS vendor and other qualified consultants are utilized as necessary (see Section 1.6.2).

Entergy Nuclear Operations also provides technical expertise in the areas of thermo-hydraulic and transient analysis, metallurgy, process control, piping, materials, chemistry, nuclear and environmental matters.

Entergy maintains a high degree of technical expertise in the plant staff. Technical support of the various activities associated with overall plant operation is provided by Entergy's headquarters and site personnel.

12.1.1.1 Corporate Organization

Chief Nuclear Officer (CNO)

The ENO organization is headed by the Chief Nuclear Officer (CNO), the highest level nuclear executive officer, who reports directly to the Chairman and Chief Executive Officer of Entergy. The CNO is the "corporate officer" specified in Technical Specification 5.2, "Organization." This position is responsible for providing top-level direction for the safe and reliable operation of Indian Point 3. Direct reports to the CNO provide engineering services, nuclear safety, operations support, and oversight. The corporate management structure is shown in Figure 12.1-1.

Senior Vice President , Engineering & Technical Services

This direct report to the CNO is responsible for providing engineering services, project management services and implementing major projects and modifications. Direct reports include Director, Nuclear Fuels; Vice President, Major Fleet Projects, Vice President, Engineering Governance, Oversight, & Support; and Vice President, Site Engineering & Chief Engineer.

Vice President, Site Engineering & Chief Engineer

The Director, Engineering is located at the plant but reports to this position. See Section 12.1.1.2

Vice President, Regulatory Assurance

This direct report to the CNO is responsible for regulatory interfaces and licensing activities at IP3. Direct Reports include Director, Nuclear Licensing; Manager, Fleet Licensing Programs; and Director, Regulatory Compliance.

Director, Regulatory Compliance

The Manager, Regulatory Assurance is located at the plant but reports to this position. See Section 12.1.1.2

Vice President, Oversight

This direct report to the CNO establishes the policies, goals, and objectives of the quality assurance policy and provides guidance and interpretation for implementing the company quality assurance policy, and is responsible for governance and implementation of the quality assurance program in accordance with regulatory requirements. Director, Oversight is a direct report, and the Manager, Nuclear Oversight at Indian Point 3 reports to the Director, Oversight.

Chief Operating Officer, North (COO-N)

The COO-N is a direct report to the CNO and is responsible for the implementation of all activities associated with the safe and reliable operation of the Entergy nuclear plants located in the north. The position is also responsible for implementing quality assurance policies, goals, and objectives. The Site Vice President, Indian Point Energy Center is a direct report.

12.1.1.2 Site Organization

The site organization is shown in Figure 12.1-2.

Site Vice President – Indian Point Energy Center (SVP-IPEC)

The SVP-IPEC reports to the COO-N and is responsible for the combined operation of Indian Point 2 and Indian Point 3 as a single site. This position is responsible for overall plant nuclear safety of Indian Point 3, and is responsible for establishing the policies, goals, and objectives and the implementation of the Quality Assurance Program Manual. The SVP-IPEC administers an organization of Entergy supervisory employees skilled in the various disciplines of nuclear plant operation. Supervisory employees in turn direct the actions and supervise the performance of physical forces at the plant, some of which may be contracted personnel. Direct reports include: General Manager, Plant Operations and the Director, Regulatory & Performance Improvement.

General Manager, Plant Operations (GMPO)

The GMPO reports to the SVP-IPEC and is the "plant manager" specified in Technical Specification 5.2, "Organization." This position is responsible for the safe and efficient operation, maintenance, and radiation protection of Indian Point 3. Direct reports include: Senior Manager, Operations; Senior Manager, Maintenance; Senior Manager, Production; Senior Manager, Site Projects & Maintenance Services; Manager, Radiation Protection; Manager, Chemistry.

Senior Manager, Operations (SMO)

The SMO reports to the GMPO and is responsible for operating the plant within all regulatory licenses and guidelines. Direct reports include: Manager, Operations – Unit 2; Manager, Operations – Unit 3; Manager, Operations Support; Supervisor, Engineering (Reactor).

Operations Manager

The Operations Manager reports to the SMO and the responsibilities of this position include:

- assuring that the plant is operated in accordance with approved procedures by qualified personnel;
- assuring that maintenance requests are properly transmitted, thus assuring that plant equipment is in a state of high reliability and readiness;
- providing the liaison between the shift and plant staff organizations; and
- assuring that plant operation is conducted in full compliance with the Technical Specifications and all other regulatory requirements.

Either the SMO or the Operations Manager holds a Senior Reactor Operator License (SRO).

Manager, Operations Support

The Manager, Operations Support reports to the SMO. Responsibilities of this position include providing technical and administrative support to the operations department. Activities include:

- ensuring that operations department documentation is maintained in accordance with procedures,
- ensuring that routine audits and evaluations of department programs are performed, and
- establishing the shift schedule for operating crews in accordance with Technical Specification staffing requirements.

Shift Manager

The Shift Manager is responsible for the operation of the plant on his shift. On off-shifts, weekends, and holidays, the Shift Manager represents plant management unless the Operations Manager, SMO, GMPO, any Director, or the SVP-IPEC is onsite. The Shift Manager is responsible for:

- operation of the plant, in accordance with requirements of the NRC and other regulatory agencies;
- assurance that all operations on his shift are performed in accordance with approved procedures and are in compliance with the limits of the Technical Specifications;
- originating maintenance requests, as problems may arise;
- administrative implementation of plant security on off-shifts;
- maintaining an NRC Senior Reactor Operator License;
- performing the review and analysis of plant transients;
- determining the circumstance, analyzing the cause, and determining that operation can proceed safely before the reactor is returned to power after a trip or an unscheduled or unexplained power reduction; and
- providing direction for returning the reactor to power following a trip or an unscheduled or unexplained power reduction.

In case of radiation or any other hazard which, in the opinion of the Shift Manager, requires plant shutdown, the Shift Manager can order the plant shut down.

The Shift Technical Advisor (STA) reports to the Shift Manager and is responsible for providing engineering expertise and advice to the Shift Manager and Control Room Supervisor on matters involving operational and nuclear safety.

Field Support Supervisor (FSS)

The FSS reports to the Shift Manager and is manned at the discretion of the Operations Manager. The FSS is required to maintain a current SRO license and is responsible to the Shift Manager for supervision and coordination of operational activities outside the Control Room according to Administrative Procedures. The FSS may serve as the SRO assigned to supervise fuel handling operations and may assume the role of STA, if qualified. The FSS has the signature authority as a designee of the Shift Manager unless specifically prohibited by the applicable procedure governing the activity.

Fire Brigade Leader

The Fire Brigade Leader is responsible to the Shift Manager during a response to a plant fire and is responsible for the conduct of fire fighting activities. The Fire Brigade Leader must hold or have held an operating license at either unit at IPEC within the past 3 years and attend training on the opposite unit's safe shutdown strategy (opposite to where the Fire Brigade Leader holds or has held an operating license) as well as meet the minimum qualification

requirements of a Fire Brigade Leader as defined in the Fire Protection Program. When assigned, the Fire Brigade Leader will not concurrently fill a shift position which is manned to meet the minimum shift crew composition as defined in the Technical Specifications or a position assigned other essential functions during a fire emergency.

Control Room Supervisor (CRS)

The CRS is responsible to the Shift Manager and is responsible for:

- assisting the Shift Manager in providing supervision, direction, oversight, and command and control of station activities during the shift; and
- directing the Reactor Operators and Nuclear Plant Operators from the control room.

The CRS must hold an active NRC Senior Reactor Operator license and is second in command of IP3 activities on shift. The Control Room Supervisor has direct authority to shut down the plant if, in his opinion, it is required because of radiation or any other hazard.

Reactor Operator (RO)

The RO is directed in his activities, which are mainly in the control room, by the CRS and Shift Manager. The RO has the responsibility to:

- assist the CRS in the direction of Nuclear Plant Operators; and
- maintain an NRC Reactor Operator License.

Nuclear Plant Operators

The Nuclear Plant Operators take direction from the CRS, RO, and Shift Manager. The Nuclear Plant Operators are responsible for:

- operation of all auxiliary equipment throughout the plant;
- providing clearance operations prior to maintenance;
- restoring equipment to service following maintenance; and
- knowledge of radiation control and protection requirements.

Manager, Radiation Protection

The Manager, Radiation Protection reports to the GMPO and is responsible for compliance with approved procedures for the radiological control and protection of personnel and the general public from radiological hazards. In this capacity, the Manager, Radiation Protection has overall responsibility for:

- custodianship of source material used for equipment and responsibility for radiological aspects of nuclear shipments leaving the plant
- Radiation Protection Plan
- radiation protection areas; and
- monitoring the environmental program and all other functions having to do with the radiological and ecological effects of the plant.

If, in the opinion of the Manager, radiological conditions threaten a radiation hazard to plant personnel or the general public, the Manager may recommend cessation of work or that the plant be shut down. If necessary, the Manager has recourse to the SVP-IPEC onsite or the COO-N.

Manager, Chemistry

The Manager, Chemistry reports to the GMPO and is responsible for integrating Chemistry departmental activities into plant operations to ensure safe, reliable, cost efficient operation. Responsibilities include ensuring compliance with applicable requirements, regulations, procedures, specifications, and environmental procedures, permits and local state, and federal environmental regulations.

Senior Manager, Maintenance

The Senior Manager, Maintenance reports to the GMPO and is responsible for the maintenance of mechanical, electrical, and instrumentation and controls systems.

Senior Manager, Production

The Senior Manager, Production reports to the GMPO and the position is accountable for the entire work management process. This position is also responsible for the outage readiness and execution process as the direct supervisor over the Outage Manager and process owner for all work management processes.

Senior Manager, Site Projects & Maintenance Services

The Senior Manager, Site Projects & Maintenance Services reports to the GMPO.

Director, Engineering

The Director, Engineering, a corporate position located at the plant, reports to the Vice President, Site Engineering & Chief Engineer, and is responsible for engineering, the development and maintenance of engineering programs, plant design bases, poilicies, and procedures for providing engineering services.

Manager, Systems & Components Engineering

The Manager, Systems & Components Engineering reports to the Director, Engineering and is responsible for the engineering support of major plant systems and components. Direct reports include: Supervisor, Balance of Plant Systems; Supervisor, NSSS Systems; Supervisor, Electrical/I&C Systems; Supervisor, Support Systems; Supervisor, Engineering FIN (Fix-It-Now) Electrical/I&C; Supervisor, Engineering FIN Mechanical/Civil.

Manager, Design & Program Engineering

The Manager, Design & Program Engineering reports to the Director, Engineering and is responsible for design engineering of mechanical, electrical, and I&C systems and for developing and maintaining engineering programs and standards. Direct reports include: Supervisor, Mechanical Design; Supervisor, Electrical Design; Supervisor I&C Design; Supervisor, Civil Design; Supervisor, Code Programs; Supervisor, Plant Programs.

Director, Regulatory & Performance Improvement

The Director, Regulatory & Performance Improvement reports to the SVP-IPEC and is responsible for managing the emergency planning, security, training, corrective action program,

human performance/industrial safety and performance improvement activities. Direct reports include: Manager, Regulatory Assurance; Manager, Performance Improvement; Manager, Security; Manager, Emergency Preparedness; Manager, Training.

Manager, Performance Improvement

The Manager, Performance Improvement reports to the Director, Regulatory & Performance Improvement and is responsible for execution of the corrective action program, including human performance, industrial safety, and performance improvement activities.

Manager, Security

The Manager, Security reports to the Director, Regulatory & Performance Improvement and is responsible for the overall security of the plant. Responsibilities include:

- implementing the security plan by insuring the security implementing procedures are carried out by exercising control over the plant's guard force;
- maintaining a liaison with local law enforcement agencies, while receiving advice from the Headquarter's Director of Security for policy matters with regard to the security of the plant; and
- assuring that intrusion alarms are tested and in good working order, while initiating work requests as necessary to correct deficiencies.

Manager, Emergency Preparedness

The Manager, Emergency Preparedness reports to the Director, Regulatory & Performance Improvement and is responsible for the development and administration of emergency preparedness to protect the health and safety of the public and plant employees. Responsibilities include:

- developing, maintaining, and implementing the Indian Point Energy Center Emergency Plan;
- assuring overall onsite and corporate emergency preparedness;
- assuring site compliance with federal regulations and plant standards; and
- coordinating Emergency Preparedness activities with state and local government and the Federal Emergency Management Agency.

Manager, Training

The Manager, Training reports to the Director, Regulatory & Performance Improvement and is responsible for:

- the formulation and implementation of all training programs, with the exception of those related to quality assurance, for all classifications of personnel within the plant (to accomplish this task, the Training Manager may schedule other managers for training in their specialty or accomplish it himself); and
- formulating and implementing replacement training and retraining of NRC licensed operators, and maintaining records of training and retraining activities pursuant to NRC requirements.

Manager, Regulatory Assurance

The Manager, Regulatory Assurance, a corporate position located at the plant, reports to the Director, Regulatory Compliance and is responsible for the maintenance of the operating license, permits, and related licensing basis documents that support compliance with NRC requirements.

Manager, Nuclear Oversight

The Manager, Nuclear Oversight, a corporate position located at the plant, reports directly to the Director, Oversight. The Manager, Nuclear Oversight is responsible for:

- implementing the Quality Assurance Program at the plant
- directing a staff of supervisors, inspectors, auditors and engineers in the implementation of the QA Program.

The Manager, Nuclear Oversight communicates quality assurance activities and results to the SVP-IPEC, GMPO, and site Directors.

12.1.2 Lines of Communication

Major communications on plant operation, availability, scheduling and maintenance generally will be between the SVP-IPEC, the COO-N and the CNO. However, should consultation on performance, anomalies or modifications be required, the SVP-IPEC has available, for direct communications, the entire headquarters staff. Likewise, any of the supervisors at the plant having specific responsibilities may have direct communication with the engineer at headquarters assigned to that discipline or who is most cognizant of the area of concern.

Should the SVP-IPEC be unavailable, the GMPO will assume the responsibilities of the position or the SVP-IPEC may delegate this responsibility to other qualified supervisory personnel.

Department Managers within the plant organization are responsible for the performance of specific duties. The GMPO is responsible to the SVP-IPEC for the functional performance of the plant. A Shift Manager, competent to supervise all shift operations, is on duty at all times, and has the authority to control all operating, maintenance and testing on their shift. At all times, the Shift Manager or Control Room Supervisor on duty has direct authority to shut down the plant if, in their opinion, it is required because of radiation or any other hazard.

Administrative procedures originate from the SVP-IPEC or authorized representative. Safety related procedures are reviewed and approved in accordance with UFSAR requirements.

12.1.3 Operating Shift Crews

The minimum requirements for shift crew composition, established in 10 CFR 50.54 (m)(2) and Section 5.2.2 of the Technical Specifications, are implemented by administrative procedures.

12.1.4 Qualification of Nuclear Plant Personnel

The minimum qualifications with regard to educational background and experience for nuclear plant personnel are contained in the Quality Assurance Program Manual.

12.2 TRAINING

The Training Programs at Indian Point 3 are established, implemented and maintained using a systems approach to training. The following training programs are accredited by the National Academy for Nuclear Training:

1) Licensed Operator/Senior Operator Initial Training
2) Licensed Operator Requalification Training
3) Nuclear Plant Operator Training
4) Shift Manager Training
5) Shift Technical Advisor Training
6) Instrument and Control Technician Training
7) Radiological, Environmental and Health Physics Technician Training
8) Chemistry Technician Training
9) Electrical Maintenance Training
10) Mechanical Maintenance Training and Technical Supervisor
11) Engineering Support Personnel Training

These training programs incorporate the instructional requirements necessary to provide personnel to operate and maintain the facility in a safe manner in all modes of operation.

12.3 WRITTEN PROCEDURES

Plant Administrative, Entergy Nuclear Northeast (ENN), and Entergy Nuclear (EN) procedures govern the operation and maintenance of the facility in a safe and efficient manner. Those activities which are controlled by procedures are listed in Table 12.3-1.

Written procedures, with their appropriate check-off lists and instructions, are prepared using the review and approval mechanism dictated by the Quality Assurance Program described in the Entergy Quality Assurance Program Manual.

The approved procedures are maintained at key operating locations within the facility and their distribution is controlled.

12.4 MAINTENANCE PROGRAM

Indian Point 3 is maintained in accordance with approved written procedures as described in the Entergy nuclear management manuals or the plant's administrative procedures. Anticipated work procedures to maintain the plant in a safe and operable condition are prepared and approved, prior to the time they are required, in accordance with administrative procedures. Non-routine or emergency maintenance is accomplished in accordance with maintenance procedures. Maintenance requests are in writing or submitted electronically using properly approved forms provided for that purpose. Work does not commence until the equipment is placed in such condition as to safely protect personnel, equipment and other plant components from harm or damage. Administrative procedures define the mechanics of protective controls.

A preventive maintenance program is conducted on equipment for which experience has demonstrated a need for periodic servicing. Testing is regularly scheduled on equipment and systems in order to detect degradation from original operating parameters. Historical records of maintenance activities on all principal equipment are preserved.

TABLE 12.3-1

LIST OF ACTIVITIES CONTROLLED BY PROCEDURES

Title
Plant Staff Organization
On-site Safety Review Committee
Review and Acceptance of Vendor-Written Procedures
Procedure Use and Adherence
Plant Security
Protection of Unclassified Safeguards Information
Obtaining / Maintaining Access for and Terminating Contractor Personnel
Summary of the IP3 Emergency Planning Program
Radiation Protection Plan
Radioactive Waste Reduction Program
Respiratory Protection Program
Corrective Action Process
CR Operability and Reportability Review
Determining operability of SSCs
Corrective Action Review Board
Work Control
Conduct of Planning and Scheduling
Outage Risk Assessment
Start-up Management
Outage Management
Protective Tagging
Radioactive Effluents Control Program
Temporary Alterations
Lead Shielding Control
Training
Conduct of Training
Control of Temporary Equipment
Quality Assurance Program
Calibration of Measuring and Test Equipment
Records Management Program
Control of Vendor Equipment Technical Information
Distribution of Controlled Documents
Control of Changes to Technical Specifications and Licensing Requirements
Engineering Request Process
Commitment Management
Surveillance Test Program
Infrequently Performed Tests or Evolutions
10CFR50 Appendix J Option B Program
Special Nuclear Materials Accounting and Handling
Conduct of Operations
Post Trip/Transient Evaluation
Limiting Condition for Operation Tracking
Conduct of Maintenance

TABLE 12.3-1
(Cont.)

LIST OF ACTIVITIES CONTROLLED BY PROCEDURES

Title

Emergency Diesel Generator Inspection and Maintenance Schedule
Conduct of Instrument and Control
Instrument and Control Procedure Controls
Conduct of Radiological and Environmental Services
Petroleum Bulk Storage Program
Asbestos Management Program
Conduct of System Engineering
Nuclear Safety Evaluations, Environmental Impact Evaluations, and Classification of Structures, Systems, Components, and Subcomponents
Preparation of Justification of Continued Operation (JCO) and Reasonable Assurance of Safety (RAS)
Procurement
Conduct of Finance
Housekeeping and Cleanliness of Fluid System
Non-Radiological Medical Emergency
Memorandums of Understanding
Resolution of Procurement Nonconformance Reports
Welding Program – Control of Special Processes
Integrity of Systems Outside Containment
Overtime Restrictions
Operating Experience Program
Commitment Tracking System
Performance Enhancement Program
Environmental Qualification
ASME Section XI Repair / Replacement Program
Meteorological Monitoring System
Equipment Database Program
Inservice Inspection Program
Conduct of Materials Management
Material Control
Control of Field Issued Material
Reactivity Control and Management
Control of Maintenance Activities Under Limiting Conditions for Operation
Preventive Maintenance Program
Conduct of Construction Services
SWS Corrosion Monitoring Program
Control of Vendor / Contractor Activities
Chemical Material Control and Waste Management
Maintenance Rule
Conduct of Engineering
Fire Protection Program
Motor Operated Valve Program

12.5 RECORDS

Records retention requirements are addressed in the Entergy Quality Assurance Program Manual (QAPM). Administrative procedures define the responsibility for, and provide a method for the collection, filing, indexing, storing, maintenance and disposition of those records subject to the provisions of US NRC Regulatory Guide 1.88, Revision 2, and American National Standards Institute (ANSI) N45.2.9-1974 and National Fire Protection Association Standard 232-1975. The procedures define records as those documents which furnish evidence of the quality of items and/or activities affecting quality, excluding correspondence, and list the records, their retention period, their source, and the organization responsible for storage.

In addition, the QAPM specifies NQA-1, 1983; "Quality Assurance Program Requirements for Nuclear Facilities." NQA-1 includes requirements for the long term storage facility used for the storage of quality records.

12.6 REVIEW AND AUDIT OF OPERATIONS AND OPERATING EXPERIENCE

In addition to the responsibilities of key individuals within the Nuclear Organization who are involved with the overall quality program, three separate groups provide for the review and audit of plant operations and Operating Experience. Two of these, the On-Site Safety Review Committee and the Performance Improvement Department, are onsite groups. The other independent review and audit group is the Safety Review Committee as further described in this section.

12.6.1 On-Site Safety Review Committee (OSRC)

The OSRC is a review group composed of site management personnel that independently reviews activities to provide additional assurance that the plant is operated and maintained in accordance with the Operating License and applicable regulations that affect nuclear safety. The OSRC reports to and advises the GMPO on all matters related to nuclear safety. The membership, meeting frequency, responsibilities, records and charter of the OSRC are addressed in the Entergy Quality Assurance Program Manual and implementing procedures.

12.6.2 Performance Improvement Department

The Performance Improvement department coordinates the evaluation of INPO event reports and industry operating experience which could indicate useful areas for improving plant safety and / or reliability.

All operating experience information will be reviewed by this group or an appropriate technical group to ensure that a similar event cannot occur at the Indian Point 3 plant. Where useful improvements can be achieved, the appropriate technical group will develop and present detailed recommendations for revised procedures, equipment modifications or other improvements. Evaluations of operating experience will be reviewed by Performance Improvement and/or other responsible managers.

12.6.3 Safety Review Committee (SRC)

The SRC reports to the CNO and advises the CNO and Senior Vice Presidents of Entergy Nucelar. The primary responsibility of the SRC is to provide an independent review of nuclear safety and activities that potentially impact nuclear safety. The composition, responsibilities, and review functions of the SRC are described in the Quality Assurance Program Manual (QAPM) and implementing procedures.

12.7 CONTINGENCY PLANS

The provisions relating to the Contingency Plans are described in a document entitled “Indian Point Energy Center Emergency Plan and Procedures.”

12.8 SITE SECURITY AND ACCESS CONTROL

The fully implemented security plan provides the protection needed to meet the general performance requirements of 10 CFR 73.55(a) and the objectives of the specific requirements of 10 CFR 73.55, paragraphs (b) through (h), without impairing the ability to operate the plant safely. The approved plant security program, titled "Indian Point, Physical Security, Training and Qualification, Safeguards Contingency Plan, and Independent Spent Fuel Storage Installation Security Program”, is addressed in the facility operating license. The approved security plan documents and the NRC Security Plan Evaluation Report have been withheld from public disclosure pursuant to 10 CFR 2.790(d).

Access to Indian Point Unit 1, 2 and 3 areas for all persons is controlled under approved procedures administered by the station Security Department.