

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report/License No.: 50-286/95-11 / DPR-64
Licensee: New York Power Authority
P.O. Box 215
Buchanan, NY 10511
Facility Name: Indian Point 3 Nuclear Power Plant
Inspection At: Buchanan, NY
Inspection Conducted: July 10-13, 1995

Inspectors:



W. Maier, Emergency Preparedness Specialist
D. Silk, Senior Emergency Preparedness Specialist

Approved by:



R. Keimig, Chief, Emergency Preparedness Section
Facilities Radiological Safety and Safeguards Branch

Areas Inspected: An announced inspection was performed to review the operational status of the onsite emergency preparedness program. The review included: recent changes to the emergency plan and implementing procedures, operational readiness of onsite emergency response facilities, the effects of recent changes made to the operations and emergency response organizations, implementation of emergency preparedness training provided to on-site and off-site responders, the results of independent audits and internal assessments of the emergency preparedness program, and the effectiveness of licensee controls in identifying and correcting problems in emergency preparedness.

Results: The licensee's onsite emergency preparedness program was assessed as good. Procedures were being adequately reviewed; however, a minor administrative problem was identified with an Emergency Plan change. Onsite facilities were operationally ready and there were diverse circuits for notification of offsite agencies during severe weather. A lack of oversight for offsite tone alert radios was previously identified by the licensee and was being corrected. The Emergency Preparedness (EP) organization and the Emergency Response Organization (ERO) were stable and adequate coverage was being maintained. The EP training program was well-implemented, although the training program tracking system was found to be somewhat fragmented. Independent audits, internal reviews and self-assessment were good. Programs for analyzing and correcting EP issues, events, and problems were being well-implemented.

DETAILS

1.0 INDIVIDUALS CONTACTED

1.1 PRINCIPAL LICENSEE EMPLOYEES

+*	M. Chaubard	Emergency Planning Coordinator
*	J. DeRoy	General Manager, Maintenance
*	C. Dietz	NYPA/CP&L Mentor
*	J. Donnelly	Licensing Engineer
+	J. Drexel	Manager, Site Protection, Con Edison
+*	N. Eggemeyer	Operations Manager
*	A. Ferraro	Senior EP Engineer, Con Edison
+*	J. Gray	Director- Special Projects and Industry Affairs
*	N. Heuberger	Maintenance Manager
+*	L. Hill	Site Executive Officer
+*	S. Horvath	Emergency Planning Engineer
*	G. Kane	NYPA Consultant
+*	C. Kocsis	Emergency Planning Engineer
+*	J. Odendahl	I&C Manager
+*	N. Papaiye	QA Engineer
*	R. Patch	Director - QA
+*	P. Peloquin	QA Manager
+	K. Peters	Licensing Manager
+	A. Picciano	IP3 Quality Specialist
+*	S. Schoenwiesner	Configuration Information Manager
*	D. Spoerry	General Manager, Training
+	G. Taibi	IP3 Training
+*	J. Zach	General Manager- Operations

The inspectors also interviewed other licensee and contractor personnel.

1.2 NRC EMPLOYEES

+*	T. Frye	Resident Inspector
*	R. Keimig	EP Section Chief
*	D. Lew	Senior Resident Inspector
+*	R. Rasmussen	Resident Inspector

+ Denotes those present at the entrance meeting on July 10, 1995

* Denotes those present at the exit meeting on July 13, 1995

2.0 PURPOSE OF INSPECTION

This inspection was scheduled to evaluate the operational readiness of the licensee's Emergency Preparedness (EP) program and to determine whether changes made to the EP program since the last EP inspection continue to meet commitments and NRC requirements, and whether they adversely affected the licensee's overall state of emergency preparedness.

3.0 EMERGENCY PLAN (the Plan) AND IMPLEMENTING PROCEDURES (EIPs)

The inspectors reviewed the Plan and EIPs to determine whether NRC requirements were being met by the licensee. The inspectors verified that letters of agreement with offsite agencies were in effect and that all EIPs had been reviewed within the past two years. Prior to this inspection, an in-office review of changes to the EIPs was performed by the inspectors. The changes had been submitted to the NRC Regional Office in a timely manner and no decrease in the effectiveness of the Plan was identified as a result of the submitted changes. A list of procedures reviewed by the inspectors is included as Attachment 1 to this report.

3.1 EMERGENCY PREPAREDNESS ADMINISTRATIVE PROCEDURES

During this inspection, the inspectors determined that the licensee had developed EP administrative procedures since the last EP program inspection (April 1994). The licensee stated that the administrative procedures were to be descriptions of how the EP staff conducted its daily activities and business. The EP staff considered administrative procedures to consist of any procedure not directly related to emergency response.

The inspectors questioned the licensee about two administrative procedures that appeared to be Plan implementing procedures. One procedure addressed the conduct of drills and exercises which amplified the general statements in the Plan regarding drill and exercise commitments. The other procedure contained the checklists for the Emergency Response Facilities' (ERFs) equipment inventories and was the only specific list of equipment for the ERFs, although the Plan lists a general description of items to be included in ERFs equipment lockers.

The inspectors noted that the Plan still describes, in general terms, the activities governed by the two EP administrative procedures. They concluded that the transfer of certain information into administrative procedures was an acceptable practice. They cautioned the licensee that changes to the EP Administrative procedures should be reviewed for their impact on the plant's emergency readiness. The licensee acknowledged this fact.

3.2 PROPOSED EMERGENCY PLAN CHANGE

The licensee received NRC approval of a Technical Specification (TS) change (Amendment No. 159) that 1) revised the review and approval process for procedures, and changes thereto, that affect nuclear safety and 2) deleted the TS responsibilities for the Safety Review Committee (SRC) and Plant Operating Review Committee (PORC) with respect to certain review activities for emergency and security plans, procedures and audits. The latter change was prompted by NRC Generic Letter (GL) 93-07, "Modification of the Technical Specification Administrative Control Requirements for Emergency and Security Plans. The GL allows licensees to remove these requirements from the TS, provided that

equivalent requirements, in accordance with applicable NRC regulations, are included in the respective plans.

The licensee indicated that, based on the NRC's approval of the TS amendment, the commitment to have PORC review and approve emergency plan and procedure changes would also be removed from the Plan. Instead, the licensee included a statement in the Plan to the effect that the review and approval process for changes to the Plan and EIPs would be in accordance with applicable plant and emergency plan administrative procedures. The licensee also indicated that the removal of the previous commitment from the Plan would be made as permitted by NRC regulation 10 CFR 50.54(q). That regulation allows licensees to make changes to their Plan and EIPs without prior NRC approval if the changes do not decrease the effectiveness of the Plan, the changes continue to meet applicable NRC standards and regulations, and the changes are submitted to the NRC within 30 days.

Since the proposed review and approval process would be contained in procedures that can be revised by the licensee at any time without NRC approval and are not regulatory enforceable documents, and, therefore, would not be described in the Plan, which is a regulatory enforceable document, the inspectors questioned why the licensee did not consider the proposed Plan change as a reduction of a commitment made to the NRC, i.e., a decrease in the effectiveness of the Plan, that would require NRC approval prior to implementation. The licensee responded that the review and approval process would be similar to that described in the TS (Section 6.5.0) for procedures, and changes thereto, which had been approved by the NRC in Amendment No. 159. The inspector noted, however, that a commitment to that effect is not contained in the proposed Plan change and, therefore, it would not be an enforceable regulatory requirement.

The inspectors stated that discussion and guidance on this matter would be sought and the licensee would be notified of the outcome. The licensee agreed to withhold implementation of the Plan change and continue with the PORC review and approval process pending resolution.

4.0 EMERGENCY FACILITIES, EQUIPMENT, INSTRUMENTATION AND SUPPLIES

To assess the operational readiness of onsite facilities and equipment, the inspectors observed communication tests, sampled equipment lockers, and reviewed equipment surveillance documentation.

The inspectors observed the performance of a monthly notification circuit test. All systems (RECS, party lines, and radios) functioned properly. The inspectors also sampled the inventories of equipment lockers in the control room, OSC/TSC, the access control point (the PASS locker), and in one of the EP vehicles. All necessary equipment was present and only minor discrepancies were found, which were promptly corrected by the licensee.

The inspectors also reviewed documentation of the equipment inventories and tests from the fourth quarter of 1994 to the present. Records indicated that all inventory checks and equipment tests were performed, as required, and any discrepancies found were promptly resolved. Additionally, the inspectors verified that the licensee has an effective method in place to track the calibration dates of various radiological survey instrumentation by conducting a random sampling of the instrumentation in the lockers and comparing the calibration dates with that recorded in the tracking system. No discrepancies were noted. Based upon the observation of the facilities and equipment and the review of licensee documentation, the inspectors assessed this area as satisfactory.

4.1 OFFSITE COMMUNICATION CAPABILITIES

The inspectors reviewed the licensee's capabilities for making offsite notifications in the event of an emergency. They interviewed licensee personnel to determine which communications circuits could be affected by severe weather and discussed backup means of communication that were available.

The inspectors concluded that the licensee possesses multiple telephone lines and radios with redundant power supplies to maintain communication with offsite agencies. Cable routing for phone lines and radio antennae were sufficiently diverse and were not vulnerable to a common mode failure because the radios were wired directly to rooftop antennae. There were no spare antennae stored on site, but the installed antennae are capable of withstanding greater than 100 mile per hour winds. Overall, the licensee communication systems were well designed and not prone to common vulnerabilities.

4.2 TONE ALERT RADIOS

Immediately following the inspectors' entrance meeting, licensee personnel informed the inspectors of some potential discrepancies regarding the tone alert radio system. These radios are distributed to institutions throughout the plume exposure Emergency Planning Zone (EPZ) and to private residences in EPZ locations where emergency siren notification capability is weak. The licensee was prompted to evaluate this issue by a similar problem recently identified at the licensee's J. A. FitzPatrick Station located in Scriba, NY.

There were two major radio distribution efforts by the licensee (in 1984 and 1989) in which 148 radios were distributed to private residences. Of the 148 radios in the licensee's original database, the current status of 21 radios was unknown. The licensee mailed a questionnaire (Certified-Return Receipt Requested), on June 29, 1995, to the addresses (locations) where those radios were placed to ascertain the status of the radios.

Because of possible generic implications and offsite radiological emergency preparedness impact, this issue was referred to the NRC's

Office of Nuclear Reactor Regulation for subsequent referral to the Federal Emergency Management Agency which is responsible for offsite emergency planning. The licensee issued a DER (95-1607) to track resolution of this issue. The inspectors questioned licensee personnel about this matter and determined that no formal procedure was in place to monitor the status of tone alert radios. The licensee committed to formalizing the process by which tone alert radios are controlled. The licensee's corrective action(s) concerning this matter will be reviewed during a subsequent inspection. (IFI 50-286/95-11-01)

Overall, the licensee's emergency facilities and equipment were determined to be in good operational readiness.

5.0 ORGANIZATION AND MANAGEMENT CONTROL

The inspectors reviewed the licensee's management of the emergency preparedness staff and the emergency response organization (ERO) to determine the effect of any changes on the licensee's emergency preparedness program.

The inspectors interviewed the Emergency Preparedness Coordinator (EPC) to assess any organizational changes that might impact the EP program or the ERO. After the last EP program inspection in April 1994, the EPC started reporting to the General Manager Support Services (GMSS). Formerly, the EPC reported to the Radiological and Environmental Services Manager. The EPC stated that she has a very good working relationship with the GMSS and that they meet daily to discuss EP status and issues. Every Tuesday and Thursday, all of the managers (individuals at the EPC's organizational level) meet to coordinate activities, resolve issues, and discuss issues of a general nature before involving the General Managers (GMs). The EPC attends a meeting every Friday with all the managers and GMs in which everyone makes a brief presentation to the entire group of pertinent information and events such as trends, ACTS (action) items, and NRC inspection findings. The EPC has ample opportunity to discuss EP issues and concerns with plant management. Many of the managers and GMs are members of the ERO and, therefore, have a heightened interest in issues raised by the EPC. The inspectors considered the EPC's new location in the site organization to be one of greater access to senior site management.

The EP group is now at full strength with the three positions permanently filled. During the last EP program inspection (April 1994), the EPC and Emergency Planner were sharing the duties of EP Engineer, in addition to duties of their positions. A few months after that inspection, an individual was selected to fill the EP Engineer position. With the additional staff member, each of the EP group members have been directing more effort to their own specific duties. This was apparent by the effective program implementation found during this inspection.

All key positions in the ERO have remained stable except for the loss of a TSC manager. The individual filling that position left the licensee's

organization and another individual is scheduled to complete training to fill the vacant TSC manager position shortly.

The ERO is composed of four teams. The team concept was implemented in August 1994. One team is on-call each week to ensure that at least one person is available to fill every ERO position. Initially, there were some minor problems encountered when the team concept was implemented. Management changes, overtime, and summer vacations were some of the issues that arose. In November 1994, the GMSS issued a memorandum to all ERO team members that clearly explained the responsibilities of team members. Individuals were asked to sign the memorandum and return it to acknowledge that they understood their responsibilities.

The EPC stated that, as a result of going to the team concept, more individuals are trained and responses to pager tests have improved. Individuals were assigned to one of four teams and the designated on-call team is posted at the plant and training building entrances, printed on the Plan of the Day, and in the plant's weekly newsletter.

The EPC has a quarterly action item to conduct an audit of members of the current on-call team to determine if they are aware that they are on-call for that specific week. A review of documentation pertaining to the quarterly audits found that a few individuals were unaware of their on-call status. The inspectors did not consider this to be a significant problem, since everyone in the ERO, whether on-call or not, carries a pager and, in the event of an actual emergency, when the pagers are actuated, everyone (in addition to the designated on-call team) are required to report for duty.

The inspectors considered the organization and management controls to be acceptable.

6.0 TRAINING

The inspectors reviewed the licensee's EP training program to determine if it was in compliance with NRC regulations and the licensee's Plan and EIPs. They interviewed the EP Training Program Administrator and selected members of the ERO and reviewed training records for ERO members to determine if all individuals on the emergency roster were receiving training in accordance with the Plan, the EIPs and the Training Program description. The inspectors also attended an EP training session to assess the quality of the classroom instruction and reviewed the implementation of the recently developed training drills and performance-based training modules (PBTMs). Additionally, the inspectors reviewed the adequacy of training provided to decision-making members of the ERO on the revised Emergency Action Levels (EALs) that are to be implemented in the near future.

6.1 PERFORMANCE-BASED TRAINING MODULES (PBTMS)

The licensee developed and implemented the PBTMs in January, 1995 in an effort to make EP training more performance-based and to avoid

repetitive classroom instruction on EP topics. The PBTMs are a form of Job Performance Measure (JPM), a task-based evaluation of performance that is endorsed by the NRC for licensed operator training. The licensee uses ERO members to evaluate the performance of their peers in quarterly training drills. This training arrangement only exists for certain ERO positions. Other positions still receive formal classroom refresher training. The inspectors considered the licensee's use of PBTMs during training drills to be an effective tool to accomplish EP retraining.

The inspectors observed a session of Controller/Observer training that was given during the week of the inspection. Controller/Observer training is administered to ERO members who conduct peer evaluations using PBTMs. Those members also receive an EP overview lecture and an examination to evaluate their knowledge.

The inspectors found the training to be implemented effectively. The training was presented in a task-based training format, similar to the Systematic Approach to Training (SAT) format, which is also an NRC-endorsed training method for licensed nuclear plant operators. The instructor maintained frequent interaction with the attendees and regularly solicited feedback from them. An examination was provided at the end of the training session to evaluate the attendees' knowledge of general EP concepts.

6.2 REVISED EMERGENCY ACTION LEVELS (EAL) TRAINING

The licensee had developed revised EALs for the classification of emergency conditions. These revised EALs follow the guidance that was developed by the Nuclear Management and Resource Council (NUMARC). The NUMARC EALs were reviewed by the NRC and NRC approval to implement them was received by the licensee during the week of this inspection.

The inspectors reviewed the training attendance sheets for the lectures that were presented on the NUMARC EALs and verified that all major decision-makers had already received the classroom training. They also reviewed the lesson plans for the training and concluded that a task-based presentation of the training had been given. The inspectors also verified that officials of offsite agencies in the EPZ had received training on the NUMARC EALs.

The inspectors interviewed several members of the ERO to determine the quality of the training presented on the revised EALs. They interviewed two Emergency Directors, two Shift Managers, and one Plant Operations Manager. These are the ERO positions that are primarily involved in the detection and classification of emergency conditions. The inspectors also interviewed the Supervisor of Operations Training to determine the extent and nature of the NUMARC EAL training given to the licensed operators.

The inspectors concluded, based on the interviews, that the training had been effective. All ERO members interviewed expressed confidence that

they would be able to use the NUMARC EALs effectively. The training included a practical table-top session and several simulator scenarios. The training department developed a study guide for ERO members and implemented higher standards of performance in emergency response during licensed operator requalification simulator sessions. The inspectors concluded that NUMARC EAL training had been satisfactorily completed.

6.3 EMERGENCY PREPAREDNESS QUALIFICATION TRACKING

The inspectors reviewed the system for tracking the qualification of ERO members, reviewed procedures and records and interviewed the Training Program Administrator. In addition, they reviewed the training records of a sample of twelve randomly selected ERO members to determine if they had maintained their qualifications properly.

The licensee had recently created a computer data base matrix of ERO members to track information regarding their home and work telephone numbers for callout purposes as well as their training completion dates for qualification tracking. The inspectors reviewed this matrix against the ERO roster maintained in the EIPs and the training curriculum which details the training requirements for ERO members.

The inspectors found some errors in the matrix and the curriculum. For example, the curriculum did not list a continuing training requirement for Operational Support Center Mechanic training. The Program Administrator explained that this was due to a typographical error. Also, the matrix did not list completion dates for all the training lectures specified in the curriculum for any ERO positions. The Program Administrator explained that this was because he always provides all of the continuing training lectures for a particular class in one session. The completion of PBTM training drill participation also was not listed on the matrix. It was in a separate data base. The Program Administrator stated his intention to include this data on the matrix, but had not done so yet, even though PBTM training had begun in February of 1995. A Plant Operations Manager was listed as completing a PBTM evaluation, but the inspectors found that he had evaluated a subordinate, not a peer position. The individual had completed initial training within the last year, so his qualification was still valid.

Additionally, the inspectors found that: responders at the Joint News Center were not included in the matrix, but rather, were being tracked on a separate data base; the position for a Fitness-for-Duty responder was erroneously listed on the matrix as a Watch Chemist; the completion of Observer/Controller training was not yet listed on the matrix but was on a separate data base; the matrix erroneously listed certain responders as completing PBTM Observer/Controller training during 1994, although the course had not been developed until 1995; and an individual was listed erroneously on the matrix as having completed a PBTM, but was not in an ERO position that required PBTMs.

The inspectors concluded that the EP training program tracking system was somewhat fragmented and several different documents and data bases,

as well as the Training Program Administrator's personal memory, were needed to determine qualification status. They discussed these problems with the EP Training Program Administrator and the EPC. The Training Program Administrator recognized that his tracking system, while working well for him, was not in a readily retrievable condition and would not be easily understood by someone responsible for maintaining it in his absence. He stated that he intended to incorporate the separately maintained data bases into the master matrix data base in the near future to provide a central and easily accessed system for monitoring the training status of ERO members.

The inspectors concluded that the overall EP training program was being implemented effectively, despite the above administrative discrepancies, and that the discrepancies did not impact upon the readiness of the response organization. The inspectors did not find any responders among the ones sampled who were overdue for training.

7.0 INDEPENDENT AND INTERNAL REVIEWS AND AUDITS

The inspectors interviewed the lead auditors for the 1994 and 1995 annual emergency preparedness program reviews. They reviewed the audit plans and checklists for both of these reviews. They also reviewed the audit report (Report No. A94-12) for the 1994 review and the draft report for the 1995 review (Report No. A95-07I), which had not yet been issued as of the time of the inspection. They also reviewed reports for two QA surveillances conducted of EP drills during the past year (Surveillance Nos. 94-54, 94-64).

The inspectors concluded that the auditors for the last two annual reviews had sufficient auditing experience in EP-related fields to perform the reviews adequately. The auditors were not affiliated with the EP program's implementation on-site, and their organization was sufficiently independent from the EP organization's reporting line.

The site QA organization formerly assumed lead responsibility for performing only the Technical Specification (TS) required annual reviews, while the corporate QA organization was responsible for conducting the annual 10 CFR 50.54(t) EP reviews. In January of 1995, the licensee requested and received NRC approval to delete the review required by TS (see Section 3.2). The station QA organization then assumed lead responsibility from the corporate organization for performing the 50.54(t) review. The audit teams, led by the site QA auditors, included corporate QA auditors as well as EP technical experts from other utilities.

The inspectors concluded, from their review of the last two audit reports, that the transfer of audit responsibility did not decrease the quality or comprehensiveness of the reviews. In both years, the audit findings were of minor significance and were entered into the licensee's action commitment tracking systems where they were followed to resolution. Copies of the local government interface report from the

1994 review were made available to the local and state government agencies.

The inspectors concluded that the audits met all the regulatory requirements of 10 CFR Part 50.54(t) and the guidelines of NUREG-0654, and that all required topics were covered. Additionally, the inspectors found that the licensee had developed an audit plan for reviewing all of the elements of NUREG-0654 over the next three calendar years.

The inspectors concluded that the QA surveillances were also performed adequately. The surveillances appropriately referenced the regulatory requirements and guidelines. The reports were objective in nature and critical. No findings of major significance were identified and the threshold for including comments in surveillance reports were low.

7.1 EP SELF-ASSESSMENT

The licensee recently instituted a plant-wide program for each functional group to conduct quarterly self-assessments. The EP self-assessment program is described in EP-ADM-06, "Self-Assessment Program".

The inspectors interviewed the EPC to discuss the results of the latest self-assessment. They found her to be knowledgeable of the listed goals, appropriately self-critical about minor shortcomings in meeting those goals, and that she had plans for addressing the shortcomings. The inspectors considered the adoption of the self-assessment initiative to be commendable and a program enhancement.

The inspectors concluded that the program for independent and internal audits and assessments was effective in improving the program and well implemented.

8.0 EFFECTIVENESS OF LICENSEE CONTROLS

The inspectors reviewed the outstanding items in the EP Action Commitment Tracking System (ACTS) and interviewed the EPC to review selected ACTS items. A report on a recent Notification of Unusual Event that occurred at the plant was reviewed by the inspectors.

The inspectors reviewed selected ACTS items in the EP group's tracking system and found the items reviewed to be adequately prioritized. Items were assigned to the tracking system from a number of sources, including drill comments, Deficiency Event Reports, and administrative surveillances. ACTS entries included information on the status of overdue items, as well as any extensions of deadlines that have occurred.

The inspectors interviewed the EPC about the EP ACTS list and found her to be very knowledgeable about individual items. The EPC stated that she regularly checks the ACTS list to ensure commitments are not missed. The inspectors concluded that the EPC was exhibiting good oversight of the ACTS items and that the system was being used effectively.

8.1 NOTIFICATION OF UNUSUAL EVENT

The inspectors reviewed a report of a Notification of Unusual Event (NUE) that occurred at the plant since the last program inspection. The report was well-written and included a root cause analysis. The report was written for senior plant management and contained recommendations for corrective actions to avoid recurrence of the problems identified during the event. Based on the one event that was reviewed, the inspectors found that the licensee's method of reviewing classifiable events was well implemented.

Overall, the inspectors concluded that the licensee's program for analyzing events and correcting problems was adequately implemented.

9.0 EXIT INTERVIEW

The inspectors met with the licensee representatives denoted in Section 1.0 of this report at the conclusion of the inspection on July 13, 1995. The inspectors summarized the purpose, scope and preliminary findings of the inspection. The licensee acknowledged the inspection findings.

Attachment 1

List of the Emergency Plan and Implementing Procedures Reviewed

Procedure Number	Procedure title	Revision(s)/Change(s) Reviewed
IP-1001	Determining the Magnitude of a Release	15
IP-1002	Post-Accident Monitoring of Noble Gas Concentration in the Plant Vent	2
IP-1011	Offsite Monitoring/Site Perimeter Surveys	17
IP-1076	Roster Notification Methods	18
IP-2000	Emergency Activation of the Control Room	2
IP-2209	OSC Health Physics (HP) Technician	2
IP-2306	EOF Security Officer	2