

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-333/95-17

Docket No. 50-333

License No. DPR-59


Licensee: New York Power Authority
Post Office Box 41
Lycoming, New York 13093

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

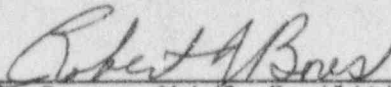
Inspection Conducted: August 14-18, 1995

Inspector:



J. Furia, Senior Radiation Specialist

Approved by:



R. Bores, Chief, Facilities Radiation Protection Section,
Facilities Radiological Safety and Safeguards Branch

Areas Inspected: Announced inspection of the licensee's radiation protection program during normal operations. Areas inspected included radiological control of work, radiation worker performance and maintaining worker exposures as low as is reasonably achievable (ALARA).

Results: The licensee had in place an adequate program for radiation protection during normal plant operations. Some improvements in the radiation protection program, including radiation worker compliance and radiation protection technician compliance with procedures, were observed, and an aggressive program for continued improvement was being implemented. The program for maintaining occupational exposures as low as is reasonably achievable (ALARA) continues to make a significant, positive contribution to the radiation protection program.

DETAILS

1.0 INDIVIDUALS CONTACTED

1.1 PRINCIPLE LICENSEE EMPLOYEES

- * J. Asselstein, Nuclear Advisory Committee
- * D. Bell, White Plains Office Senior Radiation Protection Engineer
- * T. Bergene, ALARA Supervisor
- * G. Brownell, Licensing
- * P. Brozenich, Assistant Operations Manager
- * W. Cassidy, Nuclear Advisory Committee
- * M. Colomb, General Manager - Operations
- * R. Converse, Senior Assessment Engineer
- * S. Dull, Radiological Support Engineering
- * E. Gould, Radiation Protection Technician
- * S. Hillestad, Radiological Support Engineering
- * G. Kane, Nuclear Advisory Committee
- * J. Kelly, Vice President - Regulatory Affairs
- * D. Lindsey, General Manager - Maintenance
- * J. McCarty, Quality Assessment Supervisor
- * A. McKeen, Radiological and Environmental Services Manager
- * D. Morrison, Radiation Protection Technician
- * M. Olig, Radiation Protection Technician
- * R. Patch, Director, Quality Assurance
- J. Perrotta, ORG Manager, Indian Point 3
- T. Phelps, Radiation Protection Supervisor
- * P. Policastro, Radiation Protection Supervisor
- * H. Salmon, Resident Manager
- * J. Solini, Senior Quality Assurance Engineer
- J. Solowski, Radiation Protection Supervisor
- * A. Stark, ALARA Planner
- * D. Topley, Acting General Manager - Support Services
- * D. Van Dermark, Quality Assurance Manager
- * S. Wisla, Health Physics General Supervisor
- A. Young, Decon and Shipping Supervisor
- * A. Zaremba, Licensing Manager

1.2 NRC EMPLOYEES

- * R. Fernandez, Resident Inspector

* Denotes those present at the exit meeting on August 18, 1995.

The inspector also interviewed other licensee and contractor personnel.

2.0 PURPOSE OF INSPECTION

An announced inspection of the radiation protection program during normal operations was conducted. Areas inspected included radiological worker practices and the program for maintaining worker exposures as low as is reasonably achievable (ALARA).

3.0 PREVIOUSLY IDENTIFIED ITEMS

(Open) Violation (50-333/94-30-01) Failure to follow procedures/poor radiological worker practices.

(Open) Violation (50-333/95-03-01) Failure to follow procedures by health physics technicians.

In response to a request for information contained in the transmittal letter for NRC Inspection Report 50-333/95-10, the licensee by letter from H. Salmon to R. Cooper, dated July 20, 1995, outlined actions to be taken to address NRC identified programmatic weaknesses. These weaknesses included: (1) radiation worker practices; (2) support provided by radiation protection technicians; (3) use and recognition of the usefulness of quality assurance; (4) need for improvements in radiological procedures; and (5) radiation protection technician procedural compliance.

In the July 20, 1995, response, the licensee acknowledged recognition of the problems, and outlined in general terms the corrective action plan proposed to address these issues. In general these deficiencies can be grouped as radiation worker problems and Radiological and Environmental Services Department (RES) deficiencies.

Most of this inspection was spent examining the corrective actions proposed by the licensee, and determining their adequacy and evaluating, to the extent practical, the effectiveness of those corrective actions that have already been implemented. In general, the licensee proposed a corrective action plan that appeared to address all concerns, and has successfully begun to implement these actions.

In response to concerns with radiation worker compliance, the licensee implemented an enhanced radiological worker training program, had senior station management attend departmental tail-gate meetings, and looked towards dedicating radiation protection technicians to each department. The enhanced radiological worker training was a particularly notable success, although it was still early into this program. Workers, typically in groups of 18, were sent to the licensee's training center for two days of classroom discussion and use of a training mock-up to practice working in a radiological environment. In support of this program, one instructor and two radiation protection technicians were present. Additionally, a senior manager also attended at least the first hour of each class to emphasize the importance of this training. Of particular note was the mock-up facility, where contamination problems as well as water leaks could be simulated. Students were filmed during this exercise, and the video was later reviewed to determine where improvements were needed. Very positive class and instructor reviews were received after each of the three classes conducted. The inspector noted that the training schedule for this program was set up such that the final training classes would not be given until shortly before the commencement of the next refueling outage (RF012) in October, 1996. Additionally the inspector noted that a

similar program in 1990-1991 had been instituted by the licensee, also with very positive results, but was then discontinued. The Resident Manager indicated during the exit meeting on August 18, 1995, that the schedule for conducting this training was being accelerated so that all current site employees would complete the training well before the start of RFO12, and that the training was being incorporated into the Training Department's continuing training schedule, so that it would continue to be offered to all site employees on a regular basis.

In the area of radiation protection support to plant radiation workers, the licensee is preparing to implement a communications and conflict resolution course to be given to all radiation protection staff members starting in the fall of 1995. The licensee was contracting with a local university to provide this training. Additionally, the licensee has had technicians attend the enhanced radiological worker course noted above. The RES Manager was also planning to institute a dedicated technician program, where radiation protection technicians would be assigned to each of the major departments at the plant to support these departmental workers in the Radiologically Controlled Area (RCA). The inspector noted that the responsiveness of radiation protection technicians to plant worker's problems was better than has previously been seen at the site. A member of the radiological support engineering staff was found each day standing near the main RCA access point, greeting workers and ensuring that they were properly briefed and wearing the appropriate dosimetry prior to entry. Radiation protection technicians were also more responsive to workers alarming the portal monitors upon exiting the RCA. This included installing a camera and intercom to the remote RCA exit point located in the old administration building, so that workers having problems there could be readily observed and assisted.

In the area of quality assurance, the RES Department has begun a process of conducting self-assessments utilizing both a dedicated staff of radiological support engineering staff and also drawing upon the radiation protection technicians to perform these types of assessments. The inspector reviewed the 10 assessments conducted between May and July 1995, and determined that they represented a first step towards addressing the problem of improving the radiation protection program through the use of quality assurance. Several additional self-assessments are scheduled to be conducted before October 1995, and will be reviewed by the inspector as they become available. In general the RES staff appeared more willing to be self-critical than has previously been observed by the inspector. This has also carried forward into a better acceptance of the involvement of the plant Quality Assurance (QA) Department. Three surveillances were conducted by QA in June and July 1995, two by a former Radiological Engineering Manager who has since taken a position as a Senior Quality Assurance Engineer. Also of note was the RES Department's use of the plant Deviation/Event Report (DER) system to document unsatisfactory performance and off-normal events. In previous years, use of DERs generally was avoided by both the radiation protection technicians, their supervisors, and RES management. Now there appears to be a better realization that the DER process can be utilized as a tool for improving the RES Department.

In the area of radiological procedure weaknesses, the licensee has undertaken to revise its procedures in this area. Previous attempts at this process have generally been less than successful. In this latest attempt, an upgrade team, including RES management, a program administrator, and technical personnel, have been tasked with this process. The goal, as seen by RES and senior plant management, is to have more "user friendly" procedures, which are significantly reduced in their complexity and allow the radiation protection technicians more flexibility in accomplishing their tasks. The complexity of existing procedures is believed by the licensee to have been a significant factor in the failure by radiation protection technicians to follow procedures. This is an area that will receive continued evaluations by the inspector as the revised procedures are issued.

The licensee also has undertaken to conduct outside review and support visits by a team of Indian Point 3 (IP-3) RES personnel and by a team from the corporate human resources office. The inspector reviewed a copy of the IP-3 team's initial report, and discussed both the team's report and future plans with the team leader. The report confirms the conclusions of the RES Manager and Health Physics General Supervisor (as well as of the inspector) that significant issues and problems associated with radiological worker practices and radiation protection technician performance exist at FitzPatrick. The team members also identified areas in which the program is successful and attempted to build on these areas as a way to improve the whole program. The team leader, in discussions with the inspector, indicated that all members of the team looked forward to a continuing involvement in this process at FitzPatrick. The inspector will continue to follow the work of this team during future inspections in this area.

4.0 RADIATION PROTECTION PROGRAM

Since the last inspection in this area, the Radiological Engineering General Supervisor left the RES Department to take a position in the QA Department; the position of Radiological Supervisor - Instruments has been filled; and several other changes have taken place within the health physics portion of the RES Department. An acting Radiological Engineering General Supervisor has been designated, the designated individual being a certified health physicist who held the position of RES Manager for a number of years. At the supervisory level, a supervisor for instruments was designated who formerly served as a supervisor for the plant support technicians, while another plant support supervisor was being designated to lead the decontamination workers and provide assistance in the area of radiological materials shipping. The remaining supervisor for the plant radiation protection technicians was given sole responsibility for this area, eliminating the use of three supervisors in this one area.

The RES Department has been relocated to consolidate its various functions into one area of the plant. To accomplish this, the instrument issue room has been combined with the instrument calibration lab just inside the main RCA entrance. The licensee is also planning to

change the flow pattern of entrance to, and especially egress from, the RCA, so as to improve this area for radiation worker support.

4.1 DOSIMETRY

FitzPatrick recently decided to close the in-house personnel dosimetry processing program, and to contract out the processing to the Yankee Atomic Electric Company. While the licensee, for some years now, has successfully maintained accreditation with the National Voluntary Laboratory Accreditation Program (NVLAP), the rising costs of maintaining this program, together with a general long-term desire by the licensee to replace thermoluminescent dosimeters with electronic dosimetry for determining dose of record, led to this decision. The new contract is scheduled to be implemented on September 1, 1995. As part of this process, the licensee's QA Department will conduct a surveillance at the time of initial receipt of the dosimeters from Yankee Atomic, and the licensee's corporate QA department will conduct an onsite surveillance/audit at Yankee Atomic at the time the first dosimeters are returned from FitzPatrick. The inspector will review the results of these assessments during a future inspection.

4.2 MAINTAINING OCCUPATIONAL EXPOSURES ALARA

The inspector discussed with licensee representatives the status of plant exposures to ionizing radiation and the program for minimizing these exposures. Through July 1995, the licensee was within one person-rem of the year-to-date projection and believed that the established annual goal was attainable, provided no significant forced outages were experienced. The work planning and work control process continued to be well coordinated between the various working groups, including ALARA. The licensee has progressed far enough in the work planning process such that should a forced outage occur, completed work packages, radiation work permits, industrial safety permits and ALARA reviews are prepared and ready to be worked. This is indicative of a mature and successful ALARA and work planning program.

For RFO12, the licensee has implemented an outage scope freeze as of September 1, 1995, for normal work orders and October 1, 1995, for plant modifications. Following the latter scope freeze date, the ALARA group will be expected to provide an estimate of exposure for this outage. Licensee ALARA representatives has stated that it is the goal of FitzPatrick to be in the top quartile of all commercial reactors by 1998 as determined using the three-year rolling average method as reported by an industry group. In order to accomplish this, the goal for RFO12 will need to be well under 300 person-rem. The inspector will review the outage scope and ALARA goals during a future inspection.

5.0 EXIT MEETING

The inspector met with the licensee representatives denoted in Section 1.0 of this report at the conclusion of the inspection on August 18,

1995. The inspector summarized the purpose, scope and findings of the inspection. The licensee acknowledged the inspection findings.