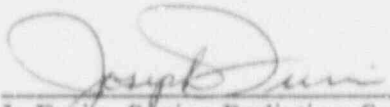


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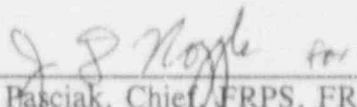
Report No. 50-333/93-02  
Docket No. 50-333  
License No. DPR-59  
Licensee: New York Power Authority  
Post Office Box 41  
Lycoming, New York 13093  
Facility Name: James A. FitzPatrick Nuclear Power Plant  
Inspection At: Lycoming, New York  
Inspection Conducted: February 15, 1993

Inspector:

  
J. Furra, Senior Radiation Specialist,  
Facilities Radiation Protection Section (FRPS),  
Facilities Radiological Safety and Safeguards  
Branch (FRSSB), Division of Radiation Safety  
and Safeguards (DRSS)

2-8-93  
date

Approved by:

  
W. Pasciak, Chief, FRPS, FRSSB, DRSS

2/8/93  
date

Areas Inspected: Announced inspection of the radiation protection program including: management organization, radiation protection during normal operations, ALARA, work control, transportation, radwaste and implementation of the above programs.

Results: Notable licensee strengths in the areas of ALARA and radwaste/transportation, including responsiveness to emergency requirements in hazardous material shipments, were observed. Weaknesses were identified in the areas of control of radioactive materials, radiological incident corrective actions and decontamination efforts.

## DETAILS

### 1. Personnel Contacted

#### 1.1 Licensee Personnel

- \* R. Barrett, General Manager - Operations
- T. Bergene, ALARA Supervisor
- \* P. Brozenich, Assistant Operations Manager
- \* M. Colomb, General Manager - Support Services
- \* C. Gannon, Radiological and Environmental Services Manager
- R. Graben, Instrument & Respiratory Supervisor
- \* J. Hoddy, Senior Nuclear Licensing Engineer
- \* D. Lindsey, General Manager - Maintenance
- \* M. McMahon, Health Physics General Supervisor
- \* E. Mulcahey, Senior Technical Advisor
- M. Rhodes, ALARA Planner
- \* H. Salmon, Resident Manager
- \* G. Tasick, Quality Assurance Manager
- A. Young, Decon & Shipping Supervisor

#### 1.2 NRC Personnel

- \* W. Cook, Senior Resident Inspector
- J. Tappert, Resident Inspector

\* Denotes those present at the exit interview on February 5, 1993.

### 2. Purpose

The purpose of this safety and health inspection was to review the licensee's programs for radiation safety during normal operations, ALARA, radiological work control, transportation and radwaste. In addition, tours of various parts of the Radiation Controlled Area (RCA) and observation of work in progress in the RCA were conducted.

### 3. Previously Identified Items

(Closed) Violation (50-333/90-12-02) Failure to follow procedures. This violation was combined with open items 50-333/90-12-01 and 50-333/90-12-03 and issued as one aggregate violation. This combined violation was closed in inspection report 50-333/90-22. This item is closed.

(Closed) Violation (50-333/90-12-03) Failure to adequately instruct worker. This violation was combined with open items 50-333/90-12-01 and 50-333/90-12-02 and issued as one aggregate violation. This combined violation was closed in inspection

report 50-333/90-22. This item is closed.

(Closed) Violation (50-333/90-17-01) Failure to follow procedures and conduct surveys. Surveys of all effected areas were completed on May 7, 1990. Revisions to RPP-5 included the listing of all areas to be surveyed within the RCA and their frequency of survey. No further incidents of this type, with the exception of that noted below as open item 50-333/90-22-02, have been identified. This item is closed.

(Closed) Violation (50-333/90-17-02) Failure to conduct Tech Spec required review of procedures. All Health Physics procedures requiring review under Plant Technical Specification 6.5.1(E) have been accomplished, and the cover sheets for all involved procedures annotated to indicate the date of this review. This item is closed.

(Closed) Violation (50-333/90-17-03) Failure to control a High Radiation Area. The licensee undertook both training upgrades and revisions to its Radiation Safety Manual in response to this violation. No further violations of this type have been subsequently identified. This item is closed.

(Closed) Violation (50-333/90-22-02) Failure to follow procedures and conduct surveys. Surveys of all effected areas were completed. Revisions to RPP-5 included the listing of all areas to be surveyed within the RCA and their frequency of survey. No further incidents of this type have been identified. This item is closed.

(Closed) Violation (50-333/91-06-02) Failure to lock High Radiation Area. Procedural enhancements, contained in the Radiation Safety Manual and Radiation Protection Procedures, have been completed. No further events of this type have been identified. This item is closed.

#### 4. Radiation Protection Program

The licensee's radiation protection organization is under the direction of the Radiological and Environmental Services (RES) Manager, who also serves as the Radiation Protection Manager, per plant Technical Specifications. The RES Manager reports directly to the Resident Manager. Three General Supervisors report directly to the RES Manager: Radiological Engineering, Health Physics and Chemistry. The Radiological Engineering General Supervisor was responsible for Dosimetry, ALARA, Radiological Engineering, Decon and Shipping, and Instrument and Respiratory Protection. The Health Physics General Supervisor was responsible for in-plant health physics and radiological procedures. All supervisory positions within this organization were filled by permanent licensee employees.

#### 4.1 Work Control

The licensee's Health Physics General Supervisor was responsible for providing radiation protection technical support to various plant working groups. Three radiation protection supervisors, together with 19 permanent and 16 contractor technicians, were tasked with implementing this program area. As part of this inspection, several tours of the RCA were conducted, especially in the Turbine, Radwaste and Reactor Buildings. In general, these areas were determined to be appropriately posted and controlled, with only minor instances of poor housekeeping practices observed. All items identified to the licensee were promptly resolved. The site Radiation Protection Manual, together with various implementing procedures were also reviewed as part of this inspection. Procedures reviewed included:

RPP-4, Rev 14, "Radiation Work Permit Procedure"

RPP-5, Rev 12, "Radiological Surveillance Procedure"

RPP-7, Rev 10, "Radiological Incident Investigation and Reporting"

RPP-11, Rev 9, "Posting and Control of Areas Containing Radiological Hazards"

RPP-21, Rev 6, "Radiation/High Radiation Area Key Control"

All of the above procedures were reviewed and approved by the Plant Operations Review Committee (PORC) in accordance with plant Technical Specifications. Daily, weekly, monthly and quarterly survey records were reviewed and found to meet the program established by licensee procedure.

One weakness observed in the licensee's program in this area was in the follow-up of proposed corrective actions for radiological incidents. In 1992, 46 Radiological Incident Reports (RIR) were initiated. Documentation surrounding the nature of the event and initial investigation was readily evident, however little documentation of corrective actions was found. Recently the licensee has undertaken to include RIR corrective actions into its Action Commitment Tracking System (ACTS). This system provides weekly printouts of open action items and overdue items and is reviewed by Department managers on a regular basis. The success of including the RIR items in this system will be examined during future inspections.

Another weakness identified was in the area of decontamination. At the time of this inspection, nearly 20% of the plant area was considered contaminated. The New York Power Authority (NYPA) long range goal for the FitzPatrick

site includes reducing the contaminated areas to 5% by 1995. At the time of this inspection, large areas of the torus and refueling floor were still considered contaminated, however discussions with plant management indicated that these areas were to be targeted for decontamination in the near future. In addition, during 1992, several instances of contaminated equipment being found in clean areas were identified. These included two incidents of contaminated scaffolding being located in clean areas of the Screenhouse, and 74 contaminated tools being found in the clean tool crib in the Turbine Building. Part of this problem can be traced to a lack of automation in surveying potentially contaminated equipment from the RCA. By the end of 1992, large quantities of tools and equipment needed to be surveyed for release, due to the extended outage. In addition, the licensee's facilities for decontamination of tools and equipment consisted of the "carwash" area in the Radwaste Building truck bay. This facility was inadequate to the task, and the licensee in 1992 rented a carbon dioxide decontamination unit for use on site, but this unit subsequently was returned to the vendor. The RES Manager indicated that increased attention to this area was warranted, and that the licensee had several action items under way to correct these weaknesses. The effectiveness of these corrective actions will be reviewed during a future inspection.

#### 4.2 ALARA

The ALARA program at FitzPatrick was under the direction of the ALARA Supervisor, who reported through the Radiological Engineering General Supervisor to the RES Manager. A significant initiative undertaken by the licensee recently has been the placement of ALARA planners in the Central Planning organization, and the establishment of system work windows. Under this program, the licensee has established week long system windows based upon a thirteen week cycle, when work will be scheduled. Two weeks prior to the window, all work requests were submitted to Central Planning where they could be scheduled and ALARA reviews could be conducted. During the two weeks prior to implementation, ALARA reviews and Radiation Work Permits are completed, health physics controls are placed into the work packages, and all necessary radiation protection equipment is staged. This type of extensive pre-job planning would more typically be found prior to an outage, and the licensee's incorporation of it here is a notable strength.

As part of this inspection, a review of licensee procedure related to the ALARA program was conducted. Procedures reviewed included:

REP-1, Rev 14, "ALARA Review"

REP-2, Rev 4, "ALARA and Radiological Program Reports"



## REP-5, Rev 2, "Plant ALARA Review Committee"

These procedures were determined to accurately reflect the current ALARA program.

For 1993, the licensee has established an ALARA goal of 220 Person-Rem. This includes two maintenance outages, one in March and the other in September. In the March outage, the drywell should remain closed, which will significantly reduce the total site exposure during this period. Initiatives in 1993 for dose reduction, in addition to the central planning initiative, include a hot spot reduction program where the licensee is contracting to have personnel come to its site to operate a 10,000 pound per square inch hydrolazer, and to train plant staff on its operation. The hydrolazing of hot piping, especially that found on various levels of the reactor building, should greatly aid the licensee in its dose reduction efforts.

#### 4.3 Radwaste and Transportation

During this inspection, direct observation of a radwaste shipment to the Barnwell Low-Level Radioactive Waste Disposal Site was made. This shipment of dewatered powder type resins from the radwaste system was made in a High Density Polyethylene (HDPE) liner in a Chem-Nuclear Systems, Inc. 14-195H shipping cask (NRC Approved LSA greater than Type A). The shipment contained 16.8 Curies in a total burial volume of 170.8 cubic feet.

Licensee activities observed included: dewatering of the liner; incoming surveillance of the transport vehicle including surveys and wipe tests; drop-and-swap of the filled shipping cask and trailer with an empty cask/trailer brought on site; and final survey, including determination of transport index, by the licensee. These activities were conducted by members of the Radiological and Environmental Services staff, including the Decon and Shipping Supervisor, who also prepared the shipment paperwork, and two radiation protection technician who conducted all surveys and wipe tests. Review of the shipment paperwork indicated that this shipment appeared to have been made in full accordance with all applicable provisions of Title 49, Code of Federal Regulations (49 CFR) Parts 170-177 and 10 CFR Parts 20, 61 and 71.

On the morning following this shipment leaving the licensee's facility, a test of the licensee's emergency response telephone contact was made. Under the provisions of 49 CFR Part 172.600 through 172.604, anyone shipping hazardous material, including radioactive material, must provide emergency response information with the shipment, including an emergency response telephone contact number. The licensee lists the Shift Supervisor's office as

telephone contact number. The licensee lists the Shift Supervisor's office as its emergency response number. The emergency response number was called by the inspector, who identified himself, and indicated that this was a test of their Department of Transportation (DOT) required emergency response contact number. Within five minutes appropriate emergency response information was provided by the licensee, including information on fire fighting techniques and emergency responder information, as contained in the licensee's Emergency Response Information sheet and DOT Emergency Response Handbook Guide No. 63, for Radioactive Material, Low Specific Activity, n.o.s. Licensee personnel, especially the shift supervisor, handled this test in a highly skilled and professional manner.

#### 5. Exit Interview

The inspector met with the licensee representatives denoted in Section 1 at the conclusion of the inspection on February 5, 1993. The inspector summarized the purpose, scope and findings of the inspection.