

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-333/90-23

Docket No. 50-333

License No. DPR-59

Licensee: New York Power Authority  
P.O. Box 41  
Lycoming, New York 13093

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: J.A. FitzPatrick Nuclear Power Plant, Lycoming, and  
JAF Environmental Laboratory, Fulton, New York

Inspection Conducted: November 26-30, 1990

Inspector:

Jason C. Jany  
Jason C. Jany, Sr. Radiation Specialist  
Effluents Radiation Protection Section (ERPS),  
Facilities Radiological Safety  
and Safeguards Branch (FRS&SB)

12-4-90  
date

Approved by:

Robert J. Bores  
Robert J. Bores, Chief, ERPS, FRS&SB,  
Division of Radiation Safety and Safeguards

12-6-90  
date

Inspection Summary: Inspection on November 26-30, 1990 (Inspection Report  
No. 50-333/90-23)

Areas Inspected: Routine, unannounced inspection of the radioactive liquid and gaseous effluent control and radiological environmental monitoring programs including: management controls; audits; quality controls; air cleaning systems; calibration of effluent/process monitors; and implementation of the above programs.

Results: Within the areas inspected, no violations or deviations were identified. The licensee implemented the above programs effectively.

## DETAILS

### 1.0 Individuals Contacted

#### 1.1 Licensee Personnel

- \*B. Gorman, Environmental Supervisor
- W. Hamblin, Chemistry Supervisor
- \*R. Liseno, Superintendent of Power
- \*A. McKeen, Chemistry General Supervisor
- \*M. McMahon, Radiological Engineering General Supervisor
- E. Salvetti, Senior Technician, Environmental Section
- \*S. Scott, I&C Supervisor
- G. Vargo, Radiological & Environmental Services Superintendent

#### 1.2 NRC

- \*R. Plasse, Resident Inspector

\*Denotes those present at the exit interview on November 30, 1990. Other licensee employees were contacted and interviewed during this inspection.

### 2.0 Purpose

The purpose of this routine inspection was to review the licensee's program in the following areas.

- o The licensee's ability to control and quantify effluent radioactive liquids, gases, and particulates.
- o The licensee's ability to carry out its Radiological Environmental Monitoring Program (REMP).

### 3.0 Audits

The inspector reviewed the following licensee's QA Audit Reports to determine the scope and depth of the licensee's self-assessment of the implementation of Technical Specification requirements.

- o Audit No. 686, "JAF Environmental Laboratory", December 27, 1989
- o Audit No. 696, "REMP", April 11, 1990
- o Audit 89-01, "Contractor Laboratory (EA Science & Technology)", August 15, 1990
- o Audit No. 698, "Radiological Effluent Control Programs and Offsite Dose Calculation Manual", April 23, 1990

These audits were conducted by the licensee's Quality Assurance Department in the areas of radiological effluents control program, implementation of the REMP and Offsite Dose Calculation Manual (ODCM).

These audits were conducted by the qualified auditors, one of whom was a contractor. All audits appeared to cover the stated objectives and to be of excellent technical depth to assess the licensee's radioactive effluents control program and the REMP. There were no audit findings in the above programs with exception of few recommendations; none of safety significance. The appropriate department responded to these findings in a timely manner. No violations were identified in this area.

#### 4.0 Liquid and Gaseous Effluent Control Programs

##### 4.1 Program Changes

There were no significant changes in the licensee's radioactive liquid and gaseous effluent control programs since the previous inspection in April 1989. The Chemistry Section had responsibility to conduct the liquid and gaseous effluent control programs.

##### 4.2 Review of Semiannual Reports

The inspector reviewed the semiannual radioactive effluent release reports for 1989 and for the first half of 1990. No obvious anomalous measurements, omissions or trends were noted. These reports provided total released radioactivity for liquid and gaseous effluents. The licensee met the Technical Specification reporting requirements. No violations were identified.

##### 4.3 Radioactive Liquid and Gaseous Effluent Controls

The inspector reviewed the licensee's procedures and selected liquid and gaseous discharge permits to determine the implementation of the following Radiological Effluent Technical Specification (RETS) requirements.

- o TS 2.0, "Liquid Effluents"
- o TS 3.0, "Gaseous Effluents"

The inspector noted that the reviewed procedures were found to be of sufficient detail to exceed the above TS requirements. The reviewed liquid and gaseous discharge permits met the above TS requirements for sampling and analysis at the frequencies established. The inspector also noted that the licensee performed trending analyses as part of the liquid and gaseous effluent control programs. The inspector reviewed the results of the trending analyses and determined that the licensee was implementing better programs than required by the TS; in fact, the licensee implemented excellent radioactive liquid and gaseous effluent control programs. No violations were identified.

#### 4.4 Calibration of Effluent/Process Radiation Monitors

The inspector reviewed 1990 calibration results for the following effluent/process monitors to determine, in part, the implementation of the TS requirements. The licensee calibrated the following effluent/process monitors quarterly.

- o Liquid Radwaste Discharge Monitor
- o Service Water Effluent Monitor
- o Main Steam Line Radiation Monitors
- o Main Stack Exhaust Monitors
- o Refueling Area Exhaust Monitors
- o Reactor Building Exhaust Monitors
- o Turbine Building Exhaust Monitors
- o Radwaste Building Exhaust Monitors
- o Offgas Radiation Monitors
- o Main Control Room Ventilation Monitor

The I&C Department had the responsibility to perform electronic calibrations and the Chemistry Section had the responsibility to perform radiological calibrations for the above monitors. All reviewed calibration results were within the licensee's acceptance criteria.

During the review of these calibration results, the inspector noted that the Chemistry Section performed trending analyses for K-Factors (K-Factor = microCi/cc/cps) to determine the integrity of these monitors. The inspector reviewed the trending analyses and had no further questions.

Based on the above review, the inspector determined that the licensee implemented an excellent program in this area. No violations were identified.

#### 5.0 Air Cleaning Systems

The inspector reviewed the licensee's most recent surveillance test results to determine the implementation of the TS requirements. The following inspection and test results for the Standby Gas Treatment and Control Room Ventilation Systems.

- o Visual Inspections
- o In-Place HEPA Leak Tests
- o In-Place Charcoal Leak Tests
- o System Air Flow Tests
- o Laboratory Tests for the Iodine Collection Efficiencies

All reviewed test results were found to be within the TS acceptance criteria. Based on these reviews, the inspector determined that the licensee implemented the requirements for the Standby Gas Treatment and Control Room Ventilation Systems effectively. No violations were identified in this area.

## 6.0 Radiological Environmental Monitoring Program (REMP)

### 6.1 Program Changes

There were no significant changes in the licensee's REMP since the previous inspection conducted in April 1989.

### 6.2 Direct Observations

The inspector examined various environmental sampling stations. These stations included air particulate and iodine samplers, thermoluminescent dosimeter (TLD) stations, milk farms, and the broad leaf vegetation gardens. All air sampling equipment was operational and TLDs were placed at the specified locations. The broad leaf vegetation and milk samples appeared to be available at the garden and milk farms as specified by the Offsite Dose Calculation Manual (ODCM).

### 6.3 Review of Annual Report

The inspector reviewed the Annual Radiological Environmental Monitoring Report for 1989. This report provided a comprehensive summary of the results of the REMP around the FitzPatrick/NMP site and met the TS reporting requirements. The inspector also reviewed available analytical data for 1990 and results appeared to be reasonable and no anomalous data were noted. No violations were noted.

### 6.4 Implementation of the REMP

The inspector reviewed the following licensee's procedures, in part, to determine whether the program described in the TS is effectively implemented.

- o ESP-2, "Environmental Data Review"
- o ESP-5, "Analysis of Environmental Samples"
- o ESP-7, "Calibration of Environmental Monitors"
- o ESP-12, "Environmental Surveillance Program QA/QC"
- o ESP-21, "Prompt Notification of Unusual Environmental Laboratory Result"

The inspector noted that the above procedures were comprehensively detailed with which to implement the REMP. The inspector also reviewed calibration records of air samplers, sampling frequency, sampling techniques for environmental media, and the REMP-plan for 1991. The licensee will assume the responsibility to analyze iodine-131 and environmental TLDs in 1991. The inspector reviewed procedures and determined that the licensee was ready to assume these responsibilities.

The inspector reviewed the licensee's quality control of analytical measurements at the JAF Environmental Laboratory. JAF Laboratory participated in the EPA cross-check program and conducted internal QC programs such as blind and split sample analyses. The inspector also reviewed the QC charts for radioactive measurement instrumentation, such as gamma spectrometry system. All reviewed results were within the licensee's acceptance criteria.

Based on the above review, the inspector determined that the licensee implemented an excellent REMP.

#### 7.0 Exit Interview

The inspector met with the licensee representatives denoted in Section 1.1 of this inspection report at the conclusion of the inspection on November 30, 1990. The inspector summarized the purpose, scope, and findings of the inspection.