

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-333/85-30

Docket No. 50-333

License No. DPR-59 Priority -- Category C

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

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

Inspection Conducted: November 18-22, 1985

Inspectors: Marie Miller 1/2/86  
M. Miller, Radiation Specialist date

M. Miller for 1/2/86  
C. Tavares, Security Specialist date

Approved by: W. Pasciak 1/2/86  
W. Pasciak, Chief, BWR Radiological date  
Protection Section

Inspection Summary:

Inspection on November 18-22, 1985 (Report No. 50-333/85-30)

Areas Inspected: Routine, unannounced safety inspection of the licensee's Interim Radiological Waste Storage Facility and improvements to the licensee's Radiation Protection Program including licensee action on previously identified items. The inspection involved 66 inspector-hours onsite by two region-based inspectors.

Results: No violations were identified.

## DETAILS

### 1.0 Licensee Personnel

*R. Converse,	Resident Manager
J. Hoddy,	Project Manager - JAF
*W. Fernandez,	Superintendent of Power
*B. Baker,	Technical Services Superintendent
*E. Mulcahey,	Radiological and Environmental Services Superintendent (RESS)
*R. Patch,	Quality Assurance Superintendent
*R. Locey,	Assistant Operations Superintendent and Acting Waste Management General Supervisor
*A. McKeen,	Assistant RESS
*J. Haley,	Security Supervisor
*L. Johnston,	Quality Assurance Supervisor
*T. Moskplyk,	Senior Plant Engineer
D. Robert,	Radiological Waste Supervisor
K. Szeluga,	Radiation Protection Supervisor
A. Start,	RESS Senior Technician

The inspector also contacted other licensee and contractor employees during the inspection.

\*Denotes attendance at exit interview.

### 2.0 Purpose

The purpose of this routine safety inspection was to review the licensee's action on previously identified items including exposure control and post accident sampling system follow-up items. In addition, the status of the licensee's Interim Radioactive Waste Storage Facility was reviewed.

### 3.0 Status of Previously Identified Items

3.1 (Closed) Inspector Follow-up Item (333/83-25-03):  
Expand calibration records to explain reason for frequent calibrations, dates the meter was out of service and "as found response". The inspector discussed with the Radiation Protection Supervisor the many improvements to the licensee's calibration program for radiation protection instrumentation. The licensee has revised most of its procedures to follow the recommendations of ANSI N323-1978 "Radiation Protection Instrumentation Test and Calibration". Calibration records require noting the "as found response," performing a three point calibration and indicating when the meter was not in use. The licensee stated that the remaining three instrument calibration procedures will be completed by December 31, 1985. This area will be reviewed during a future inspection (333/35-30-01).

- 3.2 (Closed) Inspector Follow-up Item (333/84-06-01):  
Related audit schedule to Technical Specification 6.5.2B requirements. The inspector reviewed Safety Review Committee Procedure (SRCP) 18.1, Revision 3, "SRC Delegation of Audit Functions" and the two year audit cycle for Radiological Controls. The inspector determined that the Technical Specification required audits were being performed in accordance with the audit schedule. However, an additional audit described in SRCP 18.1 to audit the facility staff based on NRC findings and not on a measurement of performance was not being performed and was to be deleted. The Chairman of the SRC stated that this section (i.e., 5.9.21) of SRCP 18.1 would be revised by December 31, 1985 to indicate that facility staff training, qualifications and performance would be measured during NRC inspections, audits, procedure review and program review.
- 3.3 (Closed) Inspector Follow-up Item (333/84-24-03):  
Complete provisions for the packaging and shipment of the PASS samples to the off-site laboratory. The licensee issued procedure EAP-20 which details the requirements of sample handling and transportation in the "Post Accident Sample Cask - NUPAC PAS-1," which would be transported to the site upon licensee notification. The licensee incorporated the vendor's recommendations for cask operation and maintenance into the procedure.
- 3.4 (Open) Inspector Follow-up Item (333/84-24-04):  
Evaluate the adequacy of the multichannel analyzer software to adequately analyze a post-accident mixture of radionuclides. The licensee completed its review of their HP-9825/8180 gamma spectrophotometric system on November 21, 1985. The results of this evaluation recommend the enhancement of the radionuclide library in a number of post accident radionuclide parameters, i.e., abundant secondary energy peaks. The licensee stated that the analysis system has the current capability to analyze post accident spectra, but the improvements will be made by December 31, 1985 to reduce the time required to analyze complex spectra. In addition, the licensee has purchased another spectrophotometric system (HP-9845/ND76) which presently has the software to analyze complex spectra. The licensee plans to calibrate this system by February 28, 1986.
- 3.5 (Open) Inspector Follow-up Item (333/84-24-05):  
Perform a time and motion study for the sampling and analysis of dissolved gas. The licensee completed a time and motion study for the sampling and analysis of a PASS dissolved gas sample on August 29, 1985. The licensee stated these actions could be completed within 115 minutes which is well below the 180 minute time limit. The licensee stated that a dose estimate based on the above will be completed by December 31, 1985.

- 3.6 (Closed) Inspector Follow-up Item (333/84-24-06):  
Establish preventative maintenance program for PASS. (This item was partially reviewed in NRC Inspection Report 50-333/85-24). The licensee incorporated the PASS components recommended by the vendor into the I&C component computerized listing. With regard to coordinating activities between the RES and I&C departments, I&C will contact RES when radiation protection monitors are due for calibration. The I&C department will have the responsibility for performing all other PASS component preventative maintenance and calibration.
- 3.7 (Open) Inspector Follow-up Item (333/84-27-07):  
Evaluate the effect from the iodine/particulate plate-out on the NGEM chamber under high release emergency conditions; and evaluate the energy dependence of the factor which is used to convert the exposure rate to activity release rate. The inspector reviewed flow diagrams and as-built 17A/7B dated November 18, 1983 for the Off-Gas System. The inspector determined that there would be no effect from the iodine/particulate plate-out on the NGEM chamber because the stack sample would be filtered, even under high release emergency conditions, before entering the NGEM chamber. Review of the drawings showed that line VR-IC-N8-101 was capped and UR-IC-N8-100 and N8-102 did not interconnect. The licensee stated that if the piping lines are changed, which is being contemplated, an empirical calculation to evaluate the effect from iodine plate-out would be performed. With regard to evaluating the energy dependence of the NGEM when determining the activity release rate as a function of time after an accident, the licensee will complete the study by December 31, 1985. Preliminary results show a factor of 1.7 maximum deviation.
- 3.8 (Closed) Inspector Follow-up Item (333/84-24-11):  
Improve calibration for PASS monitors. The licensee had developed procedure RTP-29, "Post Accident Sampling System - Radiation Monitor Calibrations." The procedure requires a three point radiation dose rate input for the four decade PASS monitors. With regard to coordinating the calibration between the RES and I&C departments, see Section 3.6 of this report for details.
- 3.9 (Closed) Violation (333/85-06-01):  
Failure to adhere to Radiation Work Permit (RWP) conditions regarding exposure and contamination control. The inspector reviewed RPOP-4, "Radiation Work Permit Procedure," dated August 29, 1985 and reviewed current and last quarter RWPs. The licensee stated that there were no new incidents of personnel wearing improper or no dosimetry. The inspector noted that the oversight responsibilities for ensuring workers wear their dosimetry and meet the requirements of the RWP, such as protective clothing, was detailed in procedures RPOP-4 and RPOP-14, "Personnel Dosimetry," dated August 30, 1985.



During a review of past RWP's, an isolated case of inappropriate placement of a whole body dosimeter was identified. The inspector noted that guidance on dosimetry placement was not included in a procedure. The licensee stated that RES staff would read IE Information Notice 81-26, Part 3, Supplement 1 and would include this guidance in an appropriate implementing procedure. This item will be reviewed during a future inspection (333/85-30-02).

- 3.10 (Closed) Inspector Follow-up Item (333/85-06-02):  
Documentation on RWP to ensure air samples are taken and correct survey is listed on RWP. The inspector reviewed RPOP-4, dated August 29, 1985 and determined that RES Technicians were required to document if respirators were used or not used. A review of past RWP's indicated that this documentation was being done and that air samples were taken when respirators were required, as a minimum. In addition, the inspector reviewed RWP's over a four month period (June thru September 1985) and found no cases where the principal survey was not recorded on the RWP form. Discussions with the RES Technicians indicated they had received training in the revised RWP procedure.
- 3.11 (Closed) Violation (333/85-06-03):  
Failure to specify frequency for performing periodic radiation surveys on RWP for High Radiation Area Control. The inspector reviewed RPOP-4, dated August 29, 1985 and determined that sufficient guidance was provided to ensure control of High Radiation Area entries, as required by Technical Specification 6.11 (A) 1. However, the inspector discussed with the licensee the need to enhance radiation control for those jobs in High Radiation Areas that may not require continuous coverage but are of longer duration in a multi-high radiation exposure source work area. The licensee stated they are evaluating the use of personnel alarming dosimeters for such entries.
- 3.12 (Closed) Inspector Follow-up Item (333/85-06-04):  
Verification of individual's names prior to entering a High Radiation Area. The licensee revised RPOP-4 to address the requirement to verify that personnel are properly signed in on the RWP including time in, initials and dosimeter reading. The inspector reviewed current work areas and found no cases of unauthorized entry into High Radiation Areas.
- 3.13 (Closed) Violation (333/85-12-01):  
Failure to follow Radiation Protection Procedures including RWP, Radiological Survey and ALARA Reviews. The inspector reviewed an internal memo (JSOP-85-037) which was distributed to plant workers to remind individuals, leadmen and RES supervisors of the requirement to adhere to Radiation Protection Procedures. The licensee also issued RES Department Standing Order No. 4, dated September 26, 1985

which addressed shift relief, watchstanding and log keeping to ensure adequate shift turnover, watchstanding and proper log keeping. With regard to complying with the conditions on the RWP, see Section 3.9 of this report. The licensee counselled RES technical personnel with formal guidance when monitoring more radiologically significant work activities. The licensee will also provide the instructions for supervisory oversight of radiologically significant work activities in the site Radiation Protection Manual. This manual is expected to be finalized by January 1986. The inspector also noted that a training session on the changes to the RWP procedure and survey techniques was conducted by the RESS.

Concerning the lack of supervisor review of an ALARA Review for Removal, Transport and Replacement of Control Rod Drives, the licensee counselled the ALARA Supervisor. The inspector noted that this was an isolated incident in that 71 ALARA reviews had been completed and only one was found lacking a required review signature.

- 3.14 (Closed) Inspector Follow-up Item (333/85-12-02):  
Licensee to issue guidance for modifying RWP. The inspector reviewed Section 4.8 of RPOP-4, "RWP Procedure," dated August 29, 1985 and determined that this revision provided guidance for revising or modifying the radiological controls specified on a RWP. In particular, RPOP-4 requires RES Department supervisor approval for any downgrade in radiological control requirements. The inspector reviewed RWPs written during the past six months and determined that there were no downgrades in RWP requirements and field changes involving upgrade in requirements were made in accordance with RPOP-4.
- 3.15 (Closed) Inspector Follow-up Item (333/85-12-03):  
Licensee to establish guidance for describing intermittent. This item is closed. For details, see Section 3.11 of this report.
- 3.16 (Open) Violation (333/85-12-04):  
Licensee did not adhere to Technical Specification 6.8/6.11 relative to High Radiation Area Control. The inspector reviewed the licensee High Radiation Area and Master Radiation (MR) Key Control program and the corrective actions taken to locate missing MR keys. The inspector reviewed the non-security related key inventory which audits High Radiation Area keys and reviewed the sign-out log which was maintained in the Work Activity Control Center under the supervision of the assistant Shift Supervisor. The inspector determined that these keys were being controlled in accordance with Technical Specification 6.8.

With regard to the MR keys which are maintained by security, the inspector noted that additional controls were invoked prior to issuance of MR keys. This order requires management oversight into the training, qualification and the need of an individual prior to

authorizing issuance of an MR key. The inspector reviewed an inventory of MR keys conducted on August 30, 1985 for all keys issued prior to April 25, 1985. The results of the inventory identified a number of missing keys. The licensee stated that all locks would be recorded to prevent inadvertent unauthorized entry. This item will remain open pending completion of this preventative action.

3.17 (Open) Inspector Follow-up Item (333/85-24-02):

Update Radioactive Waste processing procedures and flow diagrams. The inspector noted that procedure F-OP-48 "Solid Radwaste System," dated November 1985 had been revised to indicate actual processing operations. The procedure was submitted to PORC on November 21, 1985. With regard to the other procedures and related flow diagrams, the licensee stated they will have revised the appropriate procedures by December 31, 1985.

4.0 Interim Radioactive Waste Storage Facility

The status of the licensee's interim on-site storage of low-level radioactive waste was reviewed against criteria contained in:

- 10 CFR 50.59, "Changes, Tests and Experiments"
- Generic Letter 81-38, "Storage of Low-Level Radioactive Wastes at Power Reactor Sites," November 10, 1981
- NUREG-0800, Standard Review Plan, Appendix 11.4-A, "Design Guidance for Temporary Onsite Storage of Low-Level Radioactive Waste," July, 1981
- IE Circular 80-18, 10 CFR 50.59, "Safety Evaluations for Changes to Radioactive Waste Treatment Systems," August 22, 1980

The licensees' performance related to these criteria was determined by:

- Discussions with the Project Manager - JAF, Acting Waste Management General Supervisor, RES Superintendent Senior Plant Engineer; and Security Supervisors;
- A tour of the storage facility (scheduled completion December 21, 1985);
- Review of Draft Safety Evaluation, JAF-SE-85-140, "Interim Waste Storage Facility".

Within the scope of this review, the following was determined:

- The licensee has constructed a hardened facility for onsite storage which will have storage capacity for solidified resins for 1½ years and Dry Active Waste in LSA boxes and drums for 3 years.

- The design of the facility meets NRC guidance and the draft safety evaluation was generally complete. However, the inspector recommended that the evaluation include an evaluation or justification for a flood design basis event; and an evaluation of the potential from organic materials in waste containers that could lead to container breach and/or potential flammable condition.
- The facility will be located within the protected area.
- Administrative procedures for control of materials allowed in the facility had not been established as well as the radiological controls.

This area will be reviewed during a subsequent inspection prior to licensee use of the facility as an interim waste storage facility (333/85-30-03).

#### 5.0 Exit Interview

The inspector met with license representative (denoted in Section 1.0) at the conclusion of the inspection on November 22, 1985. The inspector summarized the purpose, scope and findings of the inspection. At no time during this inspection was written material provided to the licensee by the inspector.