U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-333/88-16

Docket No. 50-333

License No. DPR-59 Category C

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

Facility Name: James A. FitzPatrick

Inspection At: Scriba, New York

Inspection Conducted: August 9 - 12,1988

Inspectors: W. V. Thomas, Radiation Specialist — 9/16/88 date

Approved by: M. Shanbaky, Chief, Facilities Radiation Protection Section — 9/19/88 date

Inspection Summary: Inspection Report No. 50-333/88-16

Areas Inspected: Routine, Unannounced, Pre-outage Radiological Controls Planning and Preparation Inspection and followup on previously identified violations and open items.

Results: Within the scope of this inspection, no violations were identified. The radiological controls planning and preparations were adequate to support the refueling outage. Two inspector followup items and one previously identified violation were reviewed and updated.

Details

1.0 Persons Contacted

1.1 Licensee Personnel

During the course of this inspection the following personnel were contacted or interviewed:

*W. Fernandez, Superintendent of Power
*J. McCarty, Radiological and Environmental Services Department (RES), Radiation Protection Supervisor
E. Mulcahey, RES, Superintendent
R. Patch, QA/QC, Superintendent
*J. Solini, Health Physics, General Supervisor
*G. Vargo, RES, Radiological Engineering, General Supervisor

1.2 NRC Personnel

*A. Luptak, Sr. Resident Inspector
*W. Thomas, Radiation Specialist, Region I

*Denotes attendance at the exit meeting held on August 12, 1988.

2.0 Purpose

The purpose of this inspection was to examine the licensee's progress concerning the resolution of previously identified items, and inspection of the radiological controls planning and preparation for the refueling outage.

3.0 Status of Previously Identified Items

3.1 (Open) Inspector Followup Item (86-17-03)

Instrument issue return area with administrative controls needed.

This item includes several sub-items. The inspector verified that procedure OPP-10, Operation of the RES Department Issue Room, was upgraded and through implementation of these upgrades, weaknesses which were previously identified in the radiological survey instruments issuance and controls are now corrected. With regard to weaknesses related to the adequacy of the instrument calibration facilities and procedures, the inspector noted that upgrades in this area, including the purchase of a new calibrator were in progress, however, the new calibration unit was not installed at the new calibration facility. The licensee stated that this action will be completed prior to the refueling outage. This item remains open pending completion of the new calibration program including calibration equipment and procedures.

3.2 (Closed) Inspector Followup Item (86-17-04)

Licensee audit teams should include technical experts in health physics and chemistry.

A technical expert in Health Physics and Chemistry has been hired by the Licensee to assist in the performance of the audits required by technical specifications. With the additional assistance the licensee is confident that the required audit schedule will be completed this year. Based on these findings, this item is closed. However, quality and depth of QA audits will continue to be reviewed during subsequent inspections.

3.3 (Open) Violation (87-07-01)

Failure to control worker extremity exposure to less than 18.75 rem for the first calendar quarter of 1987 constitutes an apparent violation of 10 CFR 20.101 (a).

The inspector reviewed the licensee's corrective actions provided to the NRC by letter, dated May 21, 1987. The inspector verified that all short term corrective actions have been completed.

The review of the cutting tool by the vendor to determine how the cutting tool was able to capture a segment of the cut dry tube has not been accomplished. Modification of the ARM alarms on the refuel floor have been completed. Higher volume audible alarms and flashing lights have been added to the ARM ALARMS on the Refuel Floor. Based upon these findings this item remains open and will be reviewed in a subsequent inspection.

4.0 Outage Planning and Preparation

4.1 Decontamination

During the fall refueling outage plans are to decontaminate the reactor coolant system piping and vessel. A contractor has been hired to perform decontamination. All equipment required for the decontamination effort has been received onsite. Plant modifications and equipment installation is in progress. The final anion and cation exchange columns will be located in the enclosed reactor building truck bay. Piping is being installed to channel the decontamination solutions through the truck bay walls to the ion exchange columns. Once the columns are filled they will be solidified and shipped offsite as low specific activity wastes.

The decontamination method utilized by the contractor will be the LOMI process. Decontamination factors are estimated to range from 3 to 50. Initial decontamination of the recirculation system piping will begin the third week of September. Results of the decontamination of this system will be evaluated for achievement of expected decontamination factors and the resulting reduction in area dose rate.

4.2 External Exposure Control

Approximately 90 health physics technicians have been added to the RES staff for the refueling outage. These technicians are designated Junior or Senior Technicians based on prior experience and testing by the J.A.F. training department. All Junior Technicians will be supervised by a Senior Technician or by a J.A.F. Resident Health Physics Technician. Personal dosimetry badges and direct reading dosimeters are issued to all technicians and they have been included in the radiation management program daily exposure report. The daily exposure report is distributed throughout the Radiological and Environmental Services Department (RES) for daily management review and planning purposes.

All personnel who qualify as self monitors are supplied with "Dositecs" for use while within the Radiation Controlled Area (RCA). After completion of work within the RCA all personnel must exit through a portal monitor located at the RCA exit. The portal monitor use is checked by a member of the RES staff stationed at the RCA exit. Outage assignment locations have been made for all RES personnel and are detailed in the 1988 Refueling Outage RES Organization. A copy of the organization chart was provided to the inspector and it appears that the numbers of personnel and assignments are adequate to support the outage.

4.3 Internal Exposure Control

All health physics personnel whose outage assignments will require the use of respiratory protective equipment have been qualified. Additionally all crafts and operations personnel who may use respiratory protection devices during the outage have been qualified. All the required fit testing, medical examination and training on the use of respiratory protective equipment were completed. Respirator full face masks, hoods, and suits all meet the NIOSH and OSHA requirements for respiratory protective equipment for use in the nuclear industry. Sufficient supplies of respiratory protective equipment are available onsite to support the refueling outage activities.

During the previous year, J.A.F. has undertaken a campaign to reduce the number and size of contaminated areas throughout the facility. This campaign is ongoing and will continue throughout the refueling outage. During the outage, engineering and process control techniques will be used as much as possible to limit concentrations of airborne radioactive materials. All outage assigned personnel have received whole body counts and will be counted again at the end of the outage.

4.4 ALARA

The licensee has undertaken an ALARA effort in preparation for the outage. Remote controlled closed circuit television will be used for observation of activities as much as possible. In addition to the primary system decontamination effort the Stellite Ball Removal Project and the Irradiated Hardware Removal from the spent fuel pool railing have resulted in reduced dose rates in the area of the spent fuel pool.

The man-rem projection for the outage is 412 man-rem, with 650 man-rem total for 1988. This constitutes an improvement over previous years exposure. However, continuing efforts should be under taken to further reduce exposure. All personnel are aware of the ALARA goals and are actively involved in the program. The RES department will review the daily exposure report by department as specific assignments are completed, and adjust the projected goals as necessary throughout the outage.

5.0 Exit Meeting

The inspector met with licensee management representatives (denoted in Section 1) at the conclusion of the inspection on August 12, 1988. The inspectors summarized the purpose, scope, and findings of the inspection.