

U.S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-333/80-03

Docket No. 50-333

License No. DPR-59

Priority --

Category C

Licensee: Power Authority of the State of New York
10 Columbus Circle
New York, New York 10019

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection at: Scriba, New York

Inspection conducted: March 11-14, 1980

Inspectors: Ronald L. Nimitz
Ronald L. Nimitz, Radiation Specialist

12/15/80
date signed

Approved by: P. J. Knapp
P. J. Knapp, Chief, Radiation
Support Section, FF&MS Branch

12/16/80
date signed

Inspection Summary:

Inspection on March 11-14, 1980 (Report No. 50-333/80-03)

Areas Inspected: Routine, unannounced inspection by one regional based inspector of the licensee's preparations for the up-coming refueling outage including: radiation worker and radiation protection technician training; respiratory protection; posting and area control; and advance planning and preparation for the refueling. Upon arrival at the site at 11:30 p.m. on March 10, 1980, a plant tour was conducted to review adherence to radiation safety control procedures and practices. The inspection involved 30 inspector-hours on site by one NRC regional based inspector.

Results: Of the seven areas inspected, no items of noncompliance were identified in six areas; one item of noncompliance was identified in one area (Infraction - Failure to ensure breathing air is of acceptable quality and quantity and failure to have a written respirator usage policy statement as required by 10 CFR 20.103(c), Paragraph 6.).

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DETAILS

1. Persons Contacted

- *R. Baker, Maintenance Superintendent
- *R. A. Burns, Radiological and Environmental Services Superintendent
- *V. Childs, Assistant to Resident Manager
- *R. Converse, Operations Superintendent
- *C. J. Holle, Training Specialist
- *J. Leonard, Resident Manager
- D. Lindsey, Shift Supervisor, Operations
- *A. M. McKeen, Assistant to the Radiological and Environmental Services Superintendent
- *E. Mulcahey, Radiation Protection and Radiochemistry Supervisor
- *R. J. Pasternak, Superintendent of Power
- *D. E. Tall, Training Coordinator

Others

- *T. F. Stetka, USNRC

*indicates those individuals attending the final exit interview on March 14, 1980

The inspector also interviewed several other licensee employees, including members of the Health Physics staff, maintenance personnel and reactor operation personnel.

2. Purpose and Scope

The purpose of this inspection effort was to review the licensee's preparations for the upcoming refueling outage. The inspection consisted of plant tours to review posting and area control, review of licensee training of workers and radiation protection personnel, respiratory protection review, and review of other areas associated with radiation protection during reactor refueling.

3. Licensee Action of Previous Inspection Findings

- a. (Closed) Noncompliance (50-333/78-28-02) Failure to post response to Notice of Violation. The licensee has taken action to ensure responses are posted in the required time span and remain posted for the required time duration. Inspector review of the licensee's response to a Notice of Violation enclosed in a letter dated February 15, 1980 indicated the licensee's response was posted on the controlled bulletin boards within 1 day following issuance of the response.

- b. (Closed) Noncompliance (50-333/78-28-08) Failure to post copies of the documents listed in 10 CFR 19.11. The licensee posted the required documents following initial inspector identification. Inspector review of the controlled bulletin boards at elevation 272 ft and 286 ft indicated the appropriate documents were posted.
- c. (Withdrawn) Noncompliance (50-333/78-28-05) Failure to perform negative pressure test of half-mask respirator. Based on information supplied in licensee response letter (JAFFP-79-095) dated February 23, 1979 and NRC Region I acknowledgement letter dated May 21, 1979, this item was withdrawn.
- d. (Withdrawn) Noncompliance (50-333/78-28-03) Failure to utilize respiratory protective equipment consistent with Regulatory Guide 8.15. The licensee has removed all reference to half-mask respirators in his Radiation Protection Operating Procedure. This equipment is not used for radiological protection purposes.
- e. (Closed) Noncompliance (50-333/78-21-02) Failure to control access to high radiation areas. Inspector tours of controlled areas identified no high radiation areas that were not controlled in accordance with technical specification requirements. The licensee's radiation protection organization has, per a memorandum dated October 9, 1979 requested the site training coordinator to stress high radiation area access control in future training and retraining sessions. The licensee's current Radiation Protection Operating Procedures specifically address high radiation area access control. The licensee has established a Plant Standing Order for routine plant patrols to be performed by radiological and environmental services technicians which addresses checks of high radiation areas.

4. Advance Planning and Preparation

The inspector interviewed licensee radiation protection representatives to determine what advanced planning and preparation was undertaken for the refueling outage. The following was noted:

- The licensee plans to supplement his staff of radiation protection personnel by use of approximately 40 contractor technicians. Of these at least 20 are to be ANSI-N18.1, 1971 qualified.
- Additional breathing air regulators are to be ordered.
- The use of a control rod drive mock-up, for training workers for rebuilding control rod drives is tentatively planned.

- A contractor is to hydrolaze the drywell to reduce dose rates. Also, the torus is tentatively to be decontaminated to reduce dose rates for personnel performing torus modifications.

5. Training

The inspector reviewed the licensee's general employee and radiation protection training with respect to the following;

- 10 CFR 19.12, "Instruction to Workers";
- Indoctrination and Training Procedure (ITP) No. 3, "General Employee Training", Revision 0, dated October 28, 1977.
- Indoctrination and Training Procedure (ITP) No. 7, "Training for Radiation and Environmental Technicians", Revision 0, dated May 26, 1978.

a. General Employee Training

The inspector audited the licensee's general employee training (GET) course for conformance to above requirements.

Inspector review of the course content indicated the requirements of 10 CFR 19.12 and ITP No. 3 were met. The inspector dicussed the recommendation of the Draft Regulatory Guide, "Radiation Protection Training for Light-Water-Cooled Nuclear Power Plant Personnel" dated August 1979 with the licensee's Training Coordinator. The licensee's Training Coordinator indicated this draft guide would be reviewed to ensure all training recommendation contained therein are included in his current GET program.

No items of noncompliance were identified in this area.

b. Radiation Protection Technician Training

The inspector reviewed the training records of 12 radiological and environmental services technicians to determine if these individuals had been trained in accordance with the above requirements. The review of the training also included the overall adequacy of the training provided these individuals by procedure ITP-7.

The review indicated that training provided the technicians did appear to meet the training requirements of procedure ITP-7. This procedure was however, noted to provide limited training requirements for training and maintaining the proficiency of the technicians.

The training provided the 12 individuals reviewed, consisted primarily of radiation protection re-qualification training in accordance with procedure ITP-3. This training is routinely provided workers entering the controlled areas and could not be classified as in-depth training for radiological and environmental services technicians. The inspector did note, that 2 of the 12 technicians had received an extensive Power Plant Fundamentals course which included chemistry and health physics training. Periodic, unscheduled department training had at times also been given which addressed such topics as respiratory protection and air sampling.

As a result of the above, the training provided the technicians and the adequacy of the current technician training procedures were discussed with licensee radiation protection representatives. The inspector indicated a training, retraining and replacement training program meeting the recommendation of ANSI-NI8.1, 1971, "Selection and Training of Nuclear Power Plant Personnel" should be established. This program would include documented lesson plans with appropriate topics, means for ensuring the individuals understand the material through some evaluation methods, documented retraining topics, and specified retraining frequencies. These items should be included in appropriate procedures.

Licensee representatives acknowledged the above and indicated action would be taken to develop a complete training program. (50-333/80-03-03)

This topic was discussed at the exit interview at which licensee radiation protection representatives reaffirmed their intention of establishment of the above program.

6. Respiratory Protection

The inspector reviewed selected portions of the licensee's respiratory protection program with respect to the following:

- 10 CFR 20.103, "Exposure of individuals to concentrations of radioactive materials in air in restricted areas".
- Regulatory Guide 8.15, "Acceptable Programs for Respiratory Protection"
- NUREG-0041, Manual of Respiratory Protection Against Airborne Radioactive Materials

10 CFR 20.103(c) allows a licensee who utilizes respiratory protective equipment to limit the inhalation of airborne radioactive material to make allowance for use of such devices in estimating exposures of individuals to airborne radioactive materials provided the equipment is used as stipulated in Regulatory Guide 8.15.

a. Air Quality

Regulatory Guide 8.15, requires in Regulatory Position c.8 that among other technical items, as a minimum, the licensee is to provide respirable air of approved quality and quantity and is to avoid oxygen deficiency.

NUREG-0041 Section 5.2.4.1, as referenced in Regulatory Guide 8.15 Section c.8, recommends that breathing air meet at least the requirements of the specification of Grade D air as described in Compressed Gas Association "Commodity Specification for Air", G-7.1-1966. This grade of air is considered the limit for air of deteriorating quality.

Review of the licensee's respiratory protection program and discussions with licensee representatives indicated the licensee utilizes air supplied respiratory protective equipment to limit inhalation of airborne radioactive material and makes allowance for such use.

In discussing the breathing air system with licensee representatives, with respect to the above air quality requirements, the inspector noted the system to have been reviewed by the licensee. The licensee review indicated the system was capable of providing air of acceptable quality. The inspector acknowledged the review and requested test data to determine what grade of air was being provided to workers using this breathing air system to ensure it met at least the minimum acceptable specifications. The discussions indicated no evaluation of the actual breathing air being provided to workers had been performed by the licensee.

The inspector expressed concern with the above and indicated to licensee representatives that failure to evaluate the breathing air actually being provided workers by the breathing air system to ensure respirable air of approved quality and quantity was being provided was noncompliance with 10 CFR 20.103(c) (50-333/80-03-01).

Following the inspection, the licensee performed tests of the breathing air to ensure it met minimum specifications (Grade D). Inspector review of the test results, dated May 7, 1980 indicated the breathing air met the Grade D specification. Licensee representatives indicated a review would be performed for purposes of establishment of a routine breathing air sampling program.

b. Respiratory Usage

Regulatory Guide 8.15, requires in Regulatory Position c.1, that a written policy statement on respiratory usage is to be issued from a high management level if allowance for the use of respiratory protective equipment is to be made. This policy statement is to cover the use of practicable engineering controls instead of respirators; routine, non-routine, and emergency situations; and periods of respirator use and relief from respirator use. This management backing is considered essential to an adequate respiratory protection program.

As indicated in paragraph a. above, the licensee is making allowance for the use of respiratory protective equipment. The inspector noted that, among other items, this policy statement is to ensure respiratory protective equipment is not routinely used in lieu of process or engineering controls. These process or engineering controls are to maintain concentrations of airborne radioactive material below those which would require the use of the protective equipment.

The inspector review of the respiratory protection program with respect to the above requirement indicated the licenses had no written policy statement on respirator usage. Consequently, the inspector indicated that failure to have such a management policy statement was noncompliance with 10 CFR 20.103(c). (50-333/80-03-02)

7. Plant Tours

The inspector toured the controlled areas initially upon arrival and at various times during the inspection. The inspector performed radiation intensity measurements where necessary to verify licensee compliance with the requirements of 10 CFR 20.203(f), "Caution signs, labels, signals and controls". During the tours, the inspector also noted radioactive and contaminated material appeared to be adequately labeled and controlled. The tours also indicated High Radiation Areas were being controlled in accordance with Technical Specification 6.11(a), High Radiation Area.

During tours of the areas outside the main buildings, the inspector measured detectable dose rates in the access way to the administration building. These dose rates were apparently emanating from condensate storage tanks located next to the walkway and behind a fence. This area was indicated by licensee representatives as being an unrestricted area i.e. not controlled for the purposes of radiation protection. The measured dose rates were noted to be approaching the limit specified in 10 CFR 20.105, "Permissible levels of radiation in restricted areas", for an individual continuously present in an area where he would receive a dose of 100 millirem in any seven consecutive days, i.e. 0.6 mR/hr.

The dose rates measured (approximately 0.5 mR/hr) and the unrestricted area permissible dose limits were discussed with licensee representatives. The inspector also discussed the possible necessity of training of personnel commensurate with the potential radiological health protection problems in the event the radiation dose rates exceeded those which would result in doses being received in excess of 20.105 limits.

Licensee representatives indicated the radiation dose rates present at the access way would be reviewed in-light of the above. (50-333/80-03-04)

No items of noncompliance were identified in this area.

8. Additional Item

During a tour of the Reactor Building on March 13, 1980, the inspector attempted to enter onto the refueling flooring for an inspection of this area. The inspector and a licensee radiation protection representative were unable to gain access to the refueling floor due to the entrance to the area being locked. Keys to this area were being controlled by the licensee's shift supervisor.

Upon obtaining the key, the inspector and a licensee representative, unlocked the entrance to the refueling floor, and entered onto the floor following securing the entry way behind them. During the tour, the inspector and the licensee representative observed an individual cross the floor and exit the refueling floor.

The inspector questioned the licensee representative who had accompanied him as to how this individual had gained access to the floor since the area was secured and, to the inspector's knowledge, the licensee representative had signed out the only key to this area.

The individual who had crossed the floor, was located and questioned by the licensee representative and the inspector. The questioning initially indicated that the individual had apparently obtained an uncontrolled key from another worker for the access. Further questioning, however, indicated the individual had not obtained a key but had gained access to the area by climbing over the approximately 8 foot high locked fence controlling access to the refueling flooring. The individual had gained access to this area in order to perform some routine work and apparently wished to save the time of signing out the key which was available in the control room.

Following the discussions with the individual, the inspector discussed this matter with the NRC resident inspector onsite, the licensee's security representative and the facility Resident Manager. The discussions indicated the area had been secured for the previous refueling outage and had not been opened for routine access following the refueling. The area was kept secured to prevent personnel from touring the area.

The licensee's Resident Manager indicated a review would be undertaken for possible extension of the access fence.

9. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on March 14, 1980, and summarized the purpose, scope and findings of the inspection.

Licensee representatives stated the following:

- Action would be taken to develop a more extensive radiation protection and environmental services technician training and retraining program. The licensee was unable to provide a date when this program would be implemented.
- dose rates present at the access to the administration building and possible corrective action for same would be reviewed.