

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-333/82-27

Docket No. 50-333

License No. DPR-59 Priority - Category C

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

Facility Name: James A. FitzPatrick Nuclear Power Plant

Inspection At: Scriba, New York

Inspection Conducted: December 2-3, 1982

Inspector: M. H. McBride 12/22/82
M. H. McBride, Radiation Specialist date

Approved by: M. Shanbaky 12/22/82
M. Shanbaky, Chief, Facilities Radiation date
Protection Section

Inspection Summary:

Inspection on December 2-3, 1982 (Inspection Report 50-333/82-27)

Areas Inspected: Special, unannounced safety inspection to review licensee diving activities in the spent fuel pool. The inspection consisted of selective examinations of procedures and records, review of equipment and facilities, and interviews with personnel. The inspection consisted of 8 inspector-hours onsite by one region-based inspector.

Results: No violations were identified.

DETAILS

1. Persons Contacted

- *D. Burch, Reactor Analyst
- *R. Converse, Superintendent of Power
- *W. Fernandez, Maintenance Superintendent
- *N. Gannon, Radiation Protection General Supervisor
- *C. McNeill, Jr., Resident Manager
- *E. Mulcahey, Radiological and Environmental Services Superintendent

*denotes those present at the exit interview on December 3, 1982.

Other individuals including radiation protection technicians and supervisors were also contacted during this inspection.

2. Inspection Purpose

The purpose of this inspection was to review the licensee's spent fuel pool diving operations relative to IE Information Notice 82-31, "Overexposure of Diver During Work in Fuel Storage Pool."

3. Inspection Findings

In order to increase the storage capacity of the spent fuel pool, the licensee was conducting diving operations in the pool for the purpose of removing and replacing certain fuel storage racks. Primary health physics supervisory responsibility for the diving work was assigned to the Radiation Protection General Supervisor. One senior and two junior health physics technicians were assigned to cover the job continuously. Additionally, a senior level health physics technician has been assigned to assist in supervising the work on an intermittent basis.

The licensee's procedure 78-32-4, "Procedure for Underwater Diving Work Associated with Contaminated Water," Revision 1, August 25, 1982, was reviewed and found to contain guidance for diving-related health physics activities consistent with IE Information Notice 82-31.

The spent fuel pool was surveyed daily prior to diving using two independent survey instruments and a survey map which was updated to reflect the current fuel storage configuration. Daily pre-dive briefings were conducted for diving and licensee personnel to review the scope of work and the latest survey data.

To augment personnel exposure control, a radiation detector with a remote readout was attached to the diver's chest to monitor exposure during the dive, and an integrating or alarming dosimeter was placed in the diver's helmet. The diver used a hand-held detector with a remote readout to survey work areas during the dive. The remote detector readouts were continuously monitored by health physics personnel during diving. All survey and monitoring equipment was source checked each day prior to use.

The licensee was prepared to suspend or terminate diving activities under certain conditions (e.g. unexpected personnel radiation doses or erratic monitoring instrument behavior). Though these conditions had not been formally documented, the health physics technicians were aware of dive termination criteria. The licensee stated at the exit interview that the conditions requiring dive termination would be formally documented by December 3, 1982.

The licensee spent fuel pool was relatively clear and well lit. Diving activities as well as the status of fuel cells (occupied or empty) could be clearly seen. The licensee stated that pool clarity and lighting were not anticipated to be a problem during diving.

4. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 3, 1982. The purpose, scope and findings of the inspection were summarized at that time.