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

Region I

Report No. 50-277/78-26

Docket No. 50-277

License No. DPR-44 Priority -- Category C

Licensee: Philadelphia Electric Company

2301 Market Street

Philadelphia, Pennsylvania 19101

Facility Name: Peach Bottom Atomic Power Station, Unit 2

Inspection at: Delta, Pennsylvania

Inspection conducted: September 19-22, 1978

Inspectors. For 10/2/78
George Kalman, Reactor Inspector date signed

10/6/78
Edward Greenman, Reactor Inspector date signed

date signed

Approved by: 10/16/78
D. L. Caphton, Chief, Nuclear Support date signed
Section No. 1, RO&NS Branch

Inspection Summary:

Inspection on September 19-22, 1978 (Report No. 50-277/78-26)
Areas Inspected: Routine, unannounced inspection by two NRC regional based inspectors of preparation for refueling, refueling activities including: facility tours and offshift observations of fuel movement; and, independent effort. The inspection involved 58 inspector-hours onsite by two regional based inspectors.
Results: Of the five areas inspected, no items of noncompliance were identified in three areas. Two items of noncompliance were identified in two areas: (Deficiency - failure to complete procedure prerequisites prior to performing procedures, paragraph 4.c; and, Infraction - failure to observe fuel bundle during movement, paragraph 5.c).

DETAILS

1. Persons Contacted

Principal Licensee Representatives

*R. Fleischmann, Assistant Station Superintendent
*F. Polaski, Reactor Engineer
S. Roberts, Test Results Engineer
D. Smith, Outage Coordinator
J. Spencer, Maintenance Engineer
W. Tilton, Fuel Floor Supervisor
W. Ullrich, Station Superintendent
J. Winzenreid, Technical Engineer

Other licensee employees and contractor personnel were contacted during the inspection. These included engineering personnel, reactor operators, shift supervisors, security personnel, health physicists and General Electric Technicians.

* denotes those present at the exit interview.

2. Previous Inspection Item Update

(Closed) Item of Noncompliance (277/77-19-03): Unauthorized changes to procedures/failure to review temporary changes within seven days.

a. The inspector verified that procedure M 4.20 and procedure 21.4 were revised to include a workable sequence of steps and noted that a statement was included in each procedure cautioning against unauthorized deviations from the prescribed steps. The inspector had no further questions regarding this matter at this time.

b. Cognizant licensee personnel have been briefed on requirements regarding the review requirements on temporary procedural changes. Technical Specification 6.8.3.c was changed and now requires PORC review of temporary changes within 14 days versus 7 days. (Amendment 37, dated December 13, 1977). The inspector had no further questions regarding this matter at this time.

(Closed) Item of Noncompliance (277/77-19-04): Failure to follow procedures.

a. Procedure FH 6C was revised to permit fuel handling prior to completing the refueling platform check-off sheet at the start of each shift. An inspection of the refueling related check-off lists did not detect discrepancies. The inspector had no further questions regarding this matter at this time.

3. Plant Tour

The inspectors examined various areas of the Unit 2 and 3 facilities including the reactor building, Unit 2 containment process areas, turbine deck, Unit 2 refueling floor, and exterior areas.

Inspections were conducted to determine the general state of housekeeping, cleanliness, adherence to fire protection guides and to observe plant conditions. The inspectors checked equipment status, operability and verified by comparison of selected control room instrumentation that, limiting conditions for operation were being satisfied at Unit 3, and that nuclear instrumentation indicated compliance with Technical Specification requirements for refueling in progress at Unit 2. Status of off-normal alarms were discussed with various operating personnel. Operators were knowledgeable regarding these alarms. The inspectors also verified that minimum staffing requirements were satisfied, during the course of various control room tours.

No unacceptable conditions were identified.

4. Preparation for Refueling

a. Documents Reviewed

(1) Procedure FH 5, Revision 14, July 19, 1978, New Fuel Inspection, Channeling and Placement in the Fuel Pool, including Associated Check-Off List

(2) Procedure M 17.1, Revision 3, December 11, 1975, Reactor Building Crane Maintenance, including Associated Check-Off List

(3) Procedure M 4.17, Revision 0, October 15, 1975, Fuel Preparation Machine Inspection, including Associated Check-Off List

(4) Fuel Receipt and Inspection Records for 260 New Fuel Assemblies

(5) Procedure FH 21.1.3, Revision 1, April 2, 1976, Check-Out of the Refueling Platform Hoist and Load Cells

(6) Procedure M 4.20, Revision 1, July 28, 1977, Refueling Platform Electrical Inspection, including Associated Check-Off List

(7) Procedure FH 21.4, Revision 2, August 11, 1977, Fuel Preparation Machine Operational Check-Out, including Associated Check-Off List

(8) Procedure FH 21.2, Revision 1, March 23, 1978, Check-Out of the Service Platform and Associated Protective Interlocks, including Associated Check-Off List

(9) Procedure M 4.18, Revision 0, October 15, 1975, Service Platform Mechanical Inspection, including Associated Check-Off List

(10) Procedure M 4.19, Revision 1, Service Platform Electrical Inspection, including Associated Check-Off List

(11) Procedure FH 21.1.1, Revision 0, October 23, 1975, Start-Up of the Refueling Platform, including Associated Check-Off List

(12) Procedure FH 21.1.2, Revision 1, April 2, 1976, Check-Out of Refueling Platform Bridge, Trolley, Monorail and Hoists in the Fuel Pool, including Associated Check-Off List

(13) Procedure FH 21.1.6, Revision 1, April 2, 1976, Check-Out of the Air Compressor, Air Lines and Solenoid Valves, including Associated Check-Off List

(14) Procedure FH 21.1.7, Revision 1, April 2, 1976, Check-Out of Refueling Platform Bridge, Trolley, Monorail and Hoists in the Reactor Cavity, including Associated Check-Off List

b. Scope

The inspectors reviewed the receipt and inspection records associated with 260 new fuel assemblies. Refueling equipment, check-out procedures and associated check-off lists were also reviewed.

c. Findings

No discrepancies were noted in the new fuel receipt and inspection documents. Through review of the maintenance request forms and check-off sheets, the inspector noted that procedure FH 21.2, Check-Out of the Service Platform and Associated Protective Interlocks, was completed prior to the completion of its prerequisite section. Specifically, as a prerequisite to performing procedure FH 21.2, procedures M 4.18, Service Platform Mechanical Inspection, and M 4.19, Service Platform Electrical Inspection must be completed. Examination of the completed check-off sheet for procedure FH 21.2 indicated that the prerequisite section had not been signed off as required and subsequent investigation revealed that procedure M 4.18 was completed after procedure FH 21.2

A similar circumstance was found for the check-off sheet associated with procedure FH 5, New Fuel Inspection, Channeling, and Placement in the Fuel Pool. In this case, the Maintenance Request Form for prerequisite procedure M 17.1, Reactor Building Crane Maintenance, was not signed off until after FH 5 was completed. However, it was ascertained that the crane procedure was satisfactorily completed prior to handling new fuel. Failure to complete procedure prerequisites is contrary to Technical Specification 6.8.1 and constitutes an item of noncompliance (78-26-01).

5. Refueling Activities

a. Documents Reviewed

(1) Procedure FH 6C, Revision 5, March 14, 1978, Fuel Movement and Core Alteration Procedure During a Fuel Handling Outage

(2) Refueling Floor Log Book

b. Scope

The refueling procedure was reviewed for compliance to Technical Specification requirements. Refueling activities including LPRM removal and spent fuel transfer were observed. Refueling floor and control room manning, fuel status keeping, and control room to refueling floor communications were compared to applicable requirements. General refueling floor housekeeping and radiation protection practices were inspected.

c. Findings

Items inspected were acceptable with the exception of the following item of noncompliance. Item 3.d under the precaution section of procedure FH 6C states that the grapple operator must watch the fuel bundle when the fuel bundle is approaching the upper grid or the top of a fuel storage rack. The inspector noted that during the removal of a spent fuel bundle from the core, the grapple operator did not once observe the fuel bundle as required by procedures from the time the fuel bundle was several feet from the top of its vertical travel until after he had moved the bundle several feet horizontally. At this time, fuel handling operations were suspended by the Senior Licensed Operator (SLO) and the inspector reviewed the procedure with the two SLOs on the refueling floor. The SLO on duty reviewed the applicable procedural requirements with the grapple operator and fuel handling operations were resumed. The above instance of failure to follow procedures is contrary to Technical Specification 6.8.1 and constitutes an item of noncompliance (78-26-02).

6. Outage Related Maintenance Activities

a. Documents Reviewed

(1) Procedure M 1.6, Revision 2, May 15, 1978, Relief Valve Replacement

(2) Procedure M 12.21, Revision 1, September 21, 1978, R.W.C.U. System Chemical Cleaning Connection Removal

(3) Modification Procedure 21B, March 27, 1978

b. Scope

The inspector reviewed the above referenced documents and inspected the modifications being done to valves MO 2-10-89B, MO 2-10-89C, MO 3-10-89B and MO 3-10-89C in accordance with modification procedure 21B.

c. Findings

No discrepancies were identified in the inspection of the above items.

7. Exit Interview

At the conclusion of the inspection onsite, the inspectors conducted an exit interview with licensee representatives, identified by an asterisk in Detail 1. Items as described in the Details were discussed. The licensee acknowledged inspection findings.