

U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-293/86-03

Docket No. 50-293

License No. DPR-35 Priority -- Category C

Licensee: Boston Edison M/C Nuclear

800 Boylston Street

Boston, Massachusetts 02199

Facility Name: Pilgrim Generating Station

Inspection At: Plymouth, Massachusetts

Inspection Conducted: January 22-24, 1986

Inspectors:

W. Lazarus, Senior Emergency Preparedness

3/6/86  
date

W. Thomas, Emergency Preparedness Specialist

3/6/86  
date

Approved by:

T. Harpster, Chief, Emergency Preparedness

3/6/86  
date

Inspection Summary: Inspection on January 22-24, 1986 (Report No. 50-293/86-03)

Areas Inspected: Routine announced emergency preparedness inspection to followup on licensee action regarding findings identified during previous emergency preparedness inspections and exercises. The inspection involved 40 inspector hours by two NRC inspectors.

Results: No violations were identified. During this inspection sixteen open items and two items of noncompliance were closed. Twelve open items remain, which will be reviewed during subsequent inspections.

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## DETAILS

### 1. PERSONS CONTACTED

- \*L. Beckwith, Compliance Management
- L. Dooley, Nuclear Training Supervisor
- \*E. Graham, Compliance Group Leader
- \*W. Hoey, Sr. Radiation Protection Engineer
- \*C. Mathis, Nuclear Operations Manager
- \*D. Pachulski, Nuclear Training Specialist
- \*R. Silva, Emergency Preparedness Coordinator

\*Indicates those present at the exit interview.

### 2. OUTSTANDING ITEMS LISTING DETAILS

(Closed) 84-05-04 (Deviation): Provide EALs based on field monitoring results and on the methods used if the effluent and containment monitors are inoperable or offscale.

The inspectors reviewed PNPS-1 Emergency Plan Implementing Procedure 5.7.1.1, "Emergency Categories and Associated Emergency Action Levels," Rev. 4, dated August 14, 1985. Attachments D and E contain appropriate procedures to utilize the results of environmental measurements to calculate projected doses in excess of EPA Protective Action Guides for the Site Area Emergency and General Emergency Action Levels.

(Closed) 84-05-08 (Deviation): Provide for annual distribution of basic emergency planning information to the public.

The inspectors reviewed the current emergency planning brochure dated August 31, 1985. This document was distributed throughout the EPZ during September 1985. This item has also been placed on the Boston Edison computerized tracking system.

(Closed) 84-05-09 (Deviation): Provide for posting or other means of providing information to transients during an emergency (e.g. beach population, motels, etc.)

Public address system capability has been added to the Prompt Alert Warning System throughout the Pilgrim EPZ.

(Open) 84-05-16 and 85-19-01 (Deviation): Describe or reference by procedure the program for exposure control during emergencies. Improve program for evaluation/control of reentry team radiation exposure.

The inspector reviewed Procedure 5.7.2.16 "Re-entry," Rev. 3, which establishes emergency radiation exposure guidelines and requires that the Emergency Director determine whether re-entry should be performed (based on comparison of benefits to be gained to potential radiation exposure). Approval of re-entry is formally documented. At the time of this inspection, the procedure had not received formal approval. Approval and issuance of the procedure was anticipated within a few days, with associated training of emergency response personnel to follow. A drill is scheduled for late February to demonstrate training effectiveness. These items will be reviewed in a subsequent inspection.

(Open) 84-35-01/05 (Deviation): EOF design, location and layout leads to lack of effectiveness.

The inspectors reviewed the licensee's plans for, and toured the new near-site EOF which is presently under construction. The new EOF will be located about 3 miles from the plant and will be provided with shielding and filtered ventilation to meet habitability requirements. The facility will be evaluated after its completion which is expected by May 1986.

(Closed) 85-35-01 (Deviation): No facsimile capability exists between the control room, TSC, OSC and EOF.

The inspector verified that facsimile equipment has been installed in these areas, and was used during the September 1985 exercise.

(Closed) 84-35-03 (Deviation): Ensure reliable operation of the containment high range radiation monitors.

The inspector reviewed documentation maintained by the licensee which verified that the high range containment monitors were installed and operationally tested. The monitors were calibrated on November 17, 1984 and December 16, 1984. The monitors are operationally checked daily in accordance with procedure OPER-9 to ensure reliability of operation.

(Closed) 84-35-04, (Deviation): Revise procedures on transmission of information to offsite field teams in order to provide for improved information flow.

The inspector reviewed procedures 5.7.2.9, "Red Environmental Monitoring Team," Rev. 4; 5.7.2.10, "Blue Environmental Monitoring Team," Rev. 4; and 5.7.2.11, "Green Environmental Monitoring Team," Rev. 2. The licensee has purchased new hand held radio equipment and based on observations made during the September 1985 emergency preparedness exercise, inspectors determined that transmission of information between the EOF and the offsite monitoring teams was satisfactory.

(Closed) 84-35-06 (Deviation): Analysis and evaluation of radiological data should be discussed by key EOF staff members prior to making protective action recommendations to the state.

This item is closed administratively and resolution is being tracked under followup item 85-19-06.

(Closed) 84-35-07, (Deviation): Number of controllers/observers provided during the EOF portion of the drill was insufficient to make an adequate evaluation of player performance.

During the September, 1985 emergency preparedness exercise it was observed that an adequate number of controllers/observers were provided in the EOF.

(Open) 84-41-01 (Unresolved): Revise the EAL on hurricane windspeed to indicate any hurricane force peak-wind.

This item remains open pending licensee verification of the National Weather Service definition of hurricane force peak-winds and revising the EAL to be consistent with that definition.

(Closed) 84-41-02 (Followup Item): Review and revise procedure 5.7.1.1 and the associated EAL chart to include all the appropriate action levels for classifying emergencies.

The inspector reviewed PNPS procedure 5.7.1.1, "Emergency Categories and Associated Emergency Action Levels," Rev. 4 and the associated EAL chart. All the EAL's referenced in the procedure are now included on the chart.

(Closed) 84-41-03 and 84-41-09 (Followup Item): Provide more detailed dose assessment training, including practical training for those performing initial dose assessment calculations.

The inspectors reviewed the outline for the enhanced dose assessment training that has been instituted and determined that the scope and depth of the training were adequate. The inspectors verified that SRO's and STA's (who perform initial dose assessment calculations) had received the training.

(Closed) 84-41-04 (Unresolved): Develop or reference by procedure the method used for continuously determining release rates and projected doses when instruments are inoperable or offscale.

The inspector reviewed PNPS-1 Emergency Plan Implementing Procedure 5.7.2.22, "Use of the Emergency Dose Assessment System (EDAS)," Rev. 3 dated August 7, 1985 which references procedures 5.7.2.23 and 5.7.2.25, which are to be used if the necessary instruments required by 5.7.2.22 are inoperable.

(Closed) 84-41-05 (Unresolved): Revise Emergency Procedure 5.7.2.18 to provide guidance for protective action recommendations during adverse weather conditions.

The inspector reviewed PNPS-1 Emergency Plan Implementing Procedure 5.7.2.18, "Off-site Dose Projections and Protective Action Guides for the General Public," Rev. 4 Dated June 8, 1983 contains provisions for taking existing conditions into consideration prior to making protective action recommendations for the general public.

(Closed) 84-41-06 (Followup Item): Review the offsite notification procedure and make appropriate changes to provide a high probability of completing offsite notification.

The inspector reviewed the PNPS-1 Procedures for offsite notification contained in 5.7.2.8, "Control Room Emergency Communicator," Rev. 8, dated July 24, 1985. This procedure requires the onshift watch engineer to appoint a control room communicator, whose primary function is to begin the offsite notification procedure within 5 minutes of declaration by the Watch Engineer and complete the offsite notifications within 15 minutes. The inspector determined that use of this procedure will provide a high probability that offsite notifications will be completed in a timely manner.

(Closed) 84-41-07 Noncompliance: Failure to perform annual update to the Emergency Plan.

The inspector verified that the commitments made in a BECo letter dated May 30, 1985, to perform a comprehensive review of the Emergency Plan and re-issue the revised plan, had been completed. The Emergency Plan revision was issued on May 24, 1985. The licensee is tracking the commitment for an annual review on their computerized tracking system.

(Open) 84-41-08 (Inspector Followup Item): Implement a tracking system for general and specialized EP training to provide continuous assurance that personnel are trained.

Discussions were held with the licensee concerning the present tracking system which is employed at PNPS. The present system is cumbersome and makes it difficult to demonstrate that required training has been completed. A revised system will be employed in the near future.

(Closed) 84-41-10 (Noncompliance): Failure to perform yearly dissemination of basic emergency planning information to the public.

The licensee was able to demonstrate that the information had been distributed for 1985. In accordance with their commitment made in a BECo letter of May 30, 1985, the licensee is tracking this requirement for annual distribution of information on their computerized tracking system.

(Open) 84-41-11 (Unresolved Item): Determine locations for stockpiling EP information brochures.

This item remains open pending the publication and distribution of the appropriate Boston Edison work instruction.

(Closed) 85-19-02 (Followup Item): No procedures are in effect describing how and under what circumstances the EOF functions would be relocated to the alternate EOF.

The licensee indicated that a work instruction for relocation to the alternate EOF existed at the time of the exercise, but personnel involved in the discussions at that time were unaware of it. This instruction has been incorporated into PNPS Procedure 5.7.2.28, "Relocation to Alternate EOF," Rev. 0, which adequately describes this function. A new offsite primary EOF facility is scheduled for completion by May, which will eliminate the need for this procedure.

(Closed) 85-19-03 (Followup Item): Improve personnel accountability following evacuation.

When the site evacuation alarm is sounded ingress and egress to the TSC/OSC will be limited to one doorway. All personnel who enter or leave the room will be logged in or out by the TSC/OSC Administrative Assistant responsible for accountability or the security guard assigned to the TSC/OSC.

(Open) 85-19-04 (Followup Item): Improve communications between the control room, OSC, and EOF.

This item remains open pending the completion of the new EOF.

(Open) 85-19-05 (Followup Item): Emergency Director did not provide direction to TSC.

This item will remain open until all designated Emergency Directors and alternates have completed all of the training modules for that position. This item will also be observed during the next emergency preparedness exercise.

(Open) 85-19-06 (Followup Item): Screen data passed to the State was too technical/unrefined.

This item will remain open pending assignment of a technical liaison person from PNPS-1 to the State EOF. This item will also be followed during the next emergency preparedness exercise.

(Open) 85-19-07 (Follow up Item): Essential information not displayed or trended in the EOF.

This item remains open pending the completion and operation of the new EOF.

(Open) 85-19-08 (Followup Item): Establish access controls for the EOF to limit admission to only those necessary.

This item remains open pending the completion and operation of the new EOF.

3. Exit Meeting

The exit interview was conducted on January 24, 1986, during the exit the NRC Team Leader summarized the findings of this inspection and discussed the remaining open items. See detail 1 for attendees.

At no time during the inspection was any written material provided to the licensee by the inspectors.