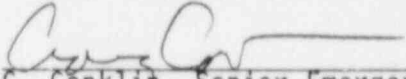
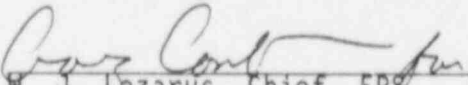


U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-293/88-09
Docket No. 50-293
License No. DPR-35 Priority _____ Category C
Licensee: Boston Edison Company
Pilgrim Nuclear Power Station
RFD #1, Rocky Hill Road
Plymouth, Massachusetts 02360
Facility Name: Pilgrim Nuclear Power Station
Inspection At: Plymouth, Massachusetts
Inspection Conducted: July 18-21, 1988
Inspector:  7/26/88
C. Conklin, Senior Emergency date
Preparedness Specialist, DRSS
Approved By:  7/26/88
W. J. Lazarus, Chief, EPS, date
EP&RPB, DRSS

Inspection Summary: Inspection on July 18-21, 1988, (Report No. 50-293/88-28)

Areas Inspected: A routine, announced emergency preparedness inspection was conducted at the Pilgrim Nuclear Power Station. The inspection areas included: Changes to the Emergency Preparedness Program; Shift Staffing and Augmentation; Knowledge and Performance of Duties (Training); and Emergency Detection and Classification.

Results: No violations were identified.

DETAILS

1.0 Persons Contacted

The following licensee representatives attended the exit meeting held on July 21, 1988.

R. Bird, Senior Vice President, Nuclear
K. Highfill, Station Director
B. Lunn, Senior Compliance Engineer
R. Varley, Emergency Preparedness Manager
D. Gillispie, Manager, Nuclear Training Department
B. Gallant, Technical Training Supervisor
K. Walker, Project Manager, Emergency Preparedness
A. Lee, Onsite Emergency Preparedness Manager
J. Spangler, Emergency Preparedness Equipment and Facilities Manager

The inspector also interviewed and observed the activities of other licensee personnel.

2.0 Operational Status of the Emergency Preparedness Program

2.1 Changes to the Emergency Preparedness Program

There have been major changes to the licensee emergency preparedness program. The most significant are the newly developed barrier based, symptomatic Emergency Actions Levels (EAL's) and a complete concept of operations revision for emergency preparedness and emergency management. See Section 2.4 for the discussion on EAL's.

The inspector reviewed EP-AD-100, "Emergency Preparedness Controlled Documents" Revision 0. This procedure provides for the preparation, review, approval and revision of all controlled emergency preparedness documents. Each document undergoes a detailed review and approval process ending with Operations Review Committee (ORC), station management and emergency preparedness management approvals.

The Emergency Plan has been revised and reformatted. The format is similar to the NUREG 0654, FEMA REP-1 format. The plan has been approved by appropriate station management as well as by the ORC. Full implementation is scheduled for October 1, 1988. The plan is clearly written and adequately covers the concepts of emergency management. The inspector noted that the plan does not describe Technical Support Center (TSC) habitability (it is described in the Implementing Procedures). The licensee agreed to evaluate this area.

The Implementing Procedures (IP's) have also been revised and reformatted. Each IP has a standard format which includes: a table of contents; purpose; references; definitions; responsibilities; procedure; records; and attachments. Each IP also includes an attachment to identify changes made to satisfy commitments. Classification and Response procedures are designed with a checklist format within the body of the procedure. Other major sections include: Emergency Response Facility Operations; Radiological/Accident Assessment; Protective Actions; and Corrective Actions. All IP's are complete and ready for submittal to ORC. Implementation is scheduled for October 1, 1988. The IP's are clearly written, and provide adequate instructions for the emergency staff to assess and respond to emergencies. The inspector noted inconsistencies in the Classification and Response procedures regarding actual instructions and notes regarding actions to be taken for both classification and declassification. The licensee agreed to evaluate this area.

Based upon the above review, this area is acceptable.

2.2 Shift Staffing and Augmentation

The inspector reviewed the personnel requirements for the Emergency Response Organization (ERO). The current ERO has at least three individuals identified and trained for each key position. Appropriate senior station management personnel have been assigned command and control positions.

A new ERO has been identified to conform with the requirements of the new plan and implementing procedures. Each position has a minimum of three members, with most positions having four members. Training is in progress and the new ERO will be implemented on October 1, 1988. The inspector noted that there is no formal mechanism to address new hires, departures and transfers. The licensee agreed, and will develop an administrative procedure to identify when personnel changes affect the ERO.

Based upon the above review, this area is acceptable.

2.3 Knowledge and Performance of Duties (Training)

The training program was reviewed during inspection 50-293/87-48. This review was primarily concerned with the lesson plans and associated training conducted and/or being developed to support the new emergency preparedness program that will be implemented on October 1, 1988.

Lesson plans have been completed for most classes. Lesson plans have been properly approved for those classes started. Emergency preparedness overview is essentially complete for the ERO. Other specialized training has been started including: Emergency Action

Level training; and Dose Assessment training. Training records reviewed were complete and accessible. Each training session provides for validation testing. A mechanism is in place to address test failures.

The inspector also audited an EAL class. The information presented was in accordance with the applicable procedures. It was presented in a clear and concise manner. The instructor communicated very well with the class and was able to effectively answer all questions.

Based upon the above review, this area is acceptable.

2.4 Emergency Detection and Classification

The licensee has developed and implemented barrier based, symptomatic EAL's. These EAL's have been integrated with the current Emergency Operating Procedures (EOP's). Where appropriate, EAL trigger points have been derived from operational curves and data contained in the EOP's. The licensee has quantified indicators and identified specific instruments and equipment. Additionally, the licensee has incorporated those EAL's that are strictly event based. With only minor exceptions, the EAL's are consistent with federal guidance. The licensee has also addressed human factors in the EAL format. Classification is performed from the highest classification to the lowest, giving a greater assurance of proper classification. The licensee is scheduled to incorporate EAL trigger points in appropriate EOP's in early 1989. The inspector discussed several areas of concern including:

- addressing proper interface between the Nuclear Watch Supervisor and Shift Security Supervisor for classifying security events;
- provide further clarification and quantification for earthquake EAL's;
- evaluate the site area emergency classification for certain man made events; and
- evaluate the unusual event and alert classification for events due to turbine component failure and turbine casing penetration.

The licensee agreed to evaluate these areas. In summary, the inspector noted that the new EAL's are much improved and should greatly assist plant operators in quickly and promptly classifying events.

Based upon the above review, this area is acceptable.

3.0 Licensee Action on Previous Inspection Findings

During the inspection, the inspector reviewed the licensee's progress concerning the items opened during previous inspections (Inspection Reports 50-293/87-54 and 50-293/88-09). The status of these items is as follows:

- (CLOSED) 87-54-01: The initial notification forms do not allow for approval by the Emergency Director, nor do they provide for possible protective actions at a Site Area Emergency.

The inspector reviewed the revised initial notification forms and determined that they provide for Emergency Director approval, as well as for protective actions.

Based upon the above review, this area is acceptable.

- (CLOSED) 87-54-02: Several key emergency positions in the organization do not have sufficient depth to support prolonged operations.

The licensee has provided trained individuals for each key emergency position. See Section 2.2.

Based upon the above review, this area is acceptable.

- (CLOSED) 88-09-01: The control room administrative assistant did not correctly follow the initial notification procedure.

The inspector reviewed the supplemental training given to the Administration Assistants (AA's). The AA's were given hands-on training in the simulator for a variety of conditions. Additionally, they interfaced directly with controllers playing Commonwealth and/or NRC officials and were required to respond to a variety of questions.

Based upon the above review, this area is acceptable.

4.0 Exit Meeting

The inspector met with the licensee representatives listed in Section 1 of this report at the end of the inspection to discuss the scope and findings of this inspection as detailed in this report.

The licensee was informed that no violations were identified. The inspector discussed several areas for improvement.

At no time during this inspection did the inspectors provide any written information to the licensee.