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NRC: REGION I 5-25-88
(ORGANIZATION) (DATE)

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-293/88-16

Docket No. 50-293

License No. DPR-35

Licensee: Boston Edison Company
800 Boylston Street
Boston, Massachusetts 02199

Facility Name: Pilgrim Nuclear Power Station

Inspection At: Plymouth, Massachusetts

Inspection Conducted: April 11-14, 1988

Inspectors: R.R. Keimig for 5-13-88
G. Smith, Safeguards Specialist date

Roland Bailey 5-13-88
R. Bailey, Physical Security Inspector date

Thomas Madden 5/13/88
T. Madden, Physical Security Inspector date

Approved by: R.R. Keimig 5-13-88
R. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Inspection Summary: Routine, Unannounced, Physical Security Inspection
on April 11-14, 1988 (Report No. 50-293/88-16)

Areas Inspected: Program Upgrades; Plan and Implementing Procedures; Program Audits; Records and Reports; Testing and Maintenance; Locks, Keys and Combinations; Physical Barriers-Protected and Vital Areas; Lighting; Compensatory Measures; Assessment Aids; Access Control-Personnel, Packages, and Vehicles; Detection Aids - Protected and Vital Areas; Alarm Stations; Communications; Safeguards Contingency Plan Implementation; Physical Protection of Safeguards Information; and review of allegations relative to deficiencies in the security program.

Results: The licensee was in compliance with NRC requirements in the areas examined. Progress on security program upgrades continues to be made. An allegation relative to security program deficiencies was not substantiated.

Details

1. Key Persons Contacted

K. Highfill, Station Director
P. Hamilton, Compliance Division Manager
E. Kraft, Jr. Plant Support Manager
N. Desmond, QC Division Manager
D. Long, Security Section Manager
R. Deacy, Security Operations Division Manager
F. Wozniak, Fire Protection Division Manager
R. Whetsel, Sr. Compliance Engineer
R. Anderson, Plant Engineer
J. Quinn, Sr. QA Engineer
T. Nicholson, Security Compliance Specialist

The inspectors also interviewed other licensee and contractor security personnel.

2. Follow-up on Allegations

On February 29, 1988, the NRC received an allegation by telephone regarding security program implementation problems. The allegation included concerns over security training, procedures, searches, patrols and organization. The alleged concerns were reviewed during this inspection as part of an overall assessment of the security program. The allegation was not substantiated. (Allegation RI-88-A-0023 is closed.)

3. Review of Security Program Upgrades

The inspectors discussed the progress made to date on the security program improvements committed to by the licensee as a result of previous NRC enforcement action. The licensee was advised by the inspectors that progress on these improvements will continue to be monitored during future inspections.

<u>Project</u>	<u>Status</u>
Protected Area Perimeter Barrier	The upgrade of the perimeter barrier is complete, with the exception of one gate and the addition of mid-rails to several barrier sections to increase their rigidity. The upgrade of the Intrusion Detection system is also complete, with the exception of one zone; and the Assessment Aid system upgrade has been completed for the perimeter. Several assessment aids within the Protected Area remain to be installed.
Protected Area and Perimeter Lighting	The installation of upgraded lighting is approximately 95% complete. Four light stanchions remain to be installed.
Main and Alternate	The designs for the new (upgraded) Access Control points are complete and new package search equipment is on site. Installation of new package and personnel search equipment and full length turnstiles is scheduled for completion on 9/30/88 in the main access point. Installation of new package search equipment in the alternate access point is also scheduled for 9/30/88.
Vital Area Analysis	The vital area analysis, including walkdown of all vital areas to verify barrier integrity and issuance of the report, is complete.
New Security Computer	The selection of a new security computer has been made and a purchase order for the computer has been issued. This project is scheduled for completion during the first quarter of 1989.
Technical Training for BECO Supervisors	Technical training for all BECO Security Supervisors is complete.
4. <u>Follow-up on Violations, Unresolved and Inspection Follow Items</u>	
	(Closed) Violation (50-293/85-24-01). The degraded vital area (VA) barrier has been repaired and meets the licensee's commitment in the NRC-approved physical security plan (the Plan). This matter is discussed further in paragraph 11 of this report.

(Closed) Inspection Follow-up Item (50-293/85-24-02): The licensee had three surveys conducted that included an analysis of vital areas. They were conducted by Globe Security, September 2, 1985; Stone and Webster, October 27, 1985 and J. C. Waal Engineering Co., February 26, 1988.

(Closed) Unresolved Item (50-293/86-37-04): The procedures to provide effective compensatory measures for security system degradation have been upgraded and were found by the inspectors to be adequate and as committed to in the Plan and implementing procedures.

(Closed) Unresolved Item (50-293/87-50-03): The licensee conducted an analysis of vital equipment and as a result established one additional vital area. The inspectors reviewed the analysis and concurred with its findings.

(Open) Violations (50-293/87-30-01, 50-293/87-30-02 and 50-293/87-50-02): These apparent violations identified degraded vital area barriers. The barriers have been repaired and the licensee's actions to prevent recurrence were reviewed by the inspectors and found adequate. These violations remain open pending an NRC decision regarding enforcement action.

5. Security Plan and Implementing Procedures

The inspectors met with licensee representatives and discussed the Plan. As a result of these discussions, and a review of the Plan and its implementing procedures, the inspectors found that the implementing procedures adequately addressed the Plan's commitments. In addition, all security personnel interviewed demonstrated familiarity with the Plan, implementing procedures, and the NRC's security program performance objectives.

6. Security Program Audit

The inspectors reviewed the annual security program audit report and verified that the audit had been conducted in accordance with the Plan. The audit was comprehensive in scope and the results were reported to the appropriate levels of management. The inspectors review included the response of the security organization to the audit findings and the corrective action taken to remedy any adverse findings. The documented corrective actions appeared appropriate for the findings.

7. Records and Reports

The inspectors reviewed various security records, logs, and reports, including patrol logs, Central Alarm Station (CAS) logs, visitor control logs, and testing and maintenance records. All records, logs and reports reviewed were complete and maintained as committed to in the Plan.

8. Testing and Maintenance

The inspectors reviewed testing and maintenance records and procedures. The inspectors determined that the licensee had developed preventive maintenance (PM) procedures for installed security equipment that were approved by the onsite review committee in November and December, 1987. However, the inspectors could not assess the impact of the PM procedures on the security equipment because of the relatively short period of time in which they were in effect. The review of maintenance records disclosed that, at the time of the inspection, there were 69 open maintenance requests (MRs) for security equipment. The average completion time for security MRs was approximately 7 days. The inspectors noted that one inoperative perimeter intrusion detection zone had been awaiting maintenance for 7 days. During that period of time, compensatory measures were being utilized on the zone. Security equipment maintenance will continue to be reviewed during subsequent inspections.

9. Locks, Keys, and Combinations

The inspectors reviewed the installation, storage, rotation, and respective records for all locks, keys, and combinations and determined that the licensee was meeting the commitments in the Plan and its implementing procedures.

10. Physical Barriers - Protected Area

The inspectors conducted a physical inspection of the protected area barriers. It was determined by observation that the barriers were installed and maintained as described in the Plan. Progress on upgrading the barriers is addressed in Paragraph 3 of this report.

11. Physical Barriers - Vital Areas

The inspectors conducted a physical inspection of the vital area barriers. The inspectors determined, by observation, that the barriers were installed and maintained as described in the Plan.

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12. Lighting

The inspectors observed lighting within the protected area. All areas appeared to be lighted in accordance with commitments in the Plan. Progress on upgrading the lighting is addressed in Paragraph 3 of this report.

13. Compensatory Measures

The inspectors reviewed the licensee's use of compensatory measures and determined their use to be consistent with the commitments in the Plan. As a result of the security program upgrades addressed in Paragraph 3 of this report, the use of compensatory measures for degraded security equipment has been dramatically reduced. Further reductions in the use of compensatory measures will occur as the upgrading projects are completed and the backlog of maintenance requests are reduced. The use of compensatory measures will be monitored during subsequent inspections.

14. Assessment Aids

The inspectors reviewed the licensee's use of assessment aids and determined by observation that the assessment aids are installed, functioning and maintained as committed to in the Plan. Progress on upgrading the assessment aids is addressed in Paragraph 3 of this report.

15. Access Control - Personnel and Packages

The inspectors reviewed the access control procedures for personnel and packages and determined that they are consistent with commitments in the Plan. This determination was made by observing personnel access processing during shift changes, visitor access processing, and by interviewing security personnel about package access procedures. The status of upgrades in the access control points is addressed in Paragraph 3 of this report.

16. Access Control - Vehicles

The inspectors reviewed the vehicle access control procedures and observed vehicle searches at the Main Vehicle Gate. They determined that vehicle searches were being conducted consistent with commitments in the Plan. However the inspectors observed that the device used to search the undercarriage of a vehicle is only marginally effective due to the length of its handle and on April 13, 1988 the attached light was inoperable. The inspectors discussed this observation with the security supervisors on duty and they took immediate corrective actions.

17. Detection Aids - Protected Area

The inspectors observed penetration tests of approximately 25% of the licensee's intrusion detection system on April 13, 1988. The remaining 75% was not tested during this inspection, however, previous test records

were reviewed and these indicated that they were operating as described in the Plan and implementing procedures. The status of upgrading the intrusion detection system is addressed in Paragraph 3 of this report.

18. Detection Aids (Vital Area)

The inspectors observed the testing of intrusion detection aids in selected vital areas and determined that they were installed and functioning as committed to in the Plan, except for one that was immediately compensated for and reported for maintenance.

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19. Alarm Stations

The inspectors observed the operation of both the central alarm station (CAS) and the secondary alarm station (SAS) and found them to be as committed to in the Plan. However, the inspectors noted that the operators were performing fire door alarm and health physics controlled area alarm monitoring functions that had the potential of directing the operators' attention from security related duties.

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20. Communications

The inspectors observed tests of all communication capabilities in both the CAS and the SAS. Also, the inspectors reviewed testing records for the various means of communications available to security force members and found them to be as committed to in the Plan.

21. Training and Qualification - General Requirements

The inspectors reviewed the licensee's Training and Qualification Plan and implementing procedures and determined that it was being implemented as committed to in the Plan.

22. Safeguards Contingency Plan Implementation Review

The inspectors reviewed the licensee's Contingency Plan and implementing procedures and determined that all exercises were being performed by the security organization as committed to in the Plan. The inspectors also determined from a review of documentation and interviews that liaison with local law enforcement agencies was being maintained and was current.

23. Protection of Safeguards Information (SGI)

The inspectors reviewed the protection and handling procedures for SGI and determined that the licensee had completed a preliminary inspection of each office on-site that handled and stored, SGI. The inspection results indicated that the SGI assigned to each office was accounted for and was being stored in accordance with established licensee procedures.

24. Exit Interview

The inspectors met with licensee representatives listed in paragraph 1 at the conclusion of the inspection on April 14, 1988. At that time, the purpose and scope of the inspection were reviewed and the findings were presented.

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