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NRC RI  
(ORGANIZATION)

2/8/91  
(DATE)

U. S. NUCLEAR REGULATORY COMMISSION  
REGION I

Report No. 50-293/91-01

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: January 7-11, 1991

Inspectors: *T. W. Dexter*  
T. W. Dexter, Physical Security Inspector

2/6/91  
date

*David F. Limroth*  
D. F. Limroth, Sr. Reactor Engineer,  
Physical Security

2/7/91  
date

Approved by: *David F. Limroth*  
for R. R. Keimig, Chief, Safeguards Section  
Division of Radiation Safety and Safeguards

2/7/91  
date

Inspection Summary: Routine, Unannounced Physical Security Inspection  
on January 7-11, 1991; Report No. 50-293/91-01)

Areas Inspected: Management Support and Program Plans; Protected and Vital Area Physical Barriers, Detection and Assessment Aids; Protected and Vital Area Access Control of Personnel and Packages; Alarm Stations and Communications; Power Supplies; Testing, Maintenance and Compensatory Measures; Personnel Training and Qualifications; and follow-up on previously identified items.

Results: The licensee was in compliance with NRC requirements in the areas examined. Areas requiring licensee attention were noted: training plans and access processing of personnel.

## DETAILS

### 1.0 Key Persons Contacted

#### 1.1 Licensee

- \*G. Davis, Senior Vice President - Nuclear
- \*E. Kraft, Plant Manager
- \*D. Long, Plant Services Department Manager
- \*J. Neal, Security Section Manager
- \*R. Deacy, Security Operations Division Manager
- \*T. Nicholson, Security Administration Division Manager
- \*P. Hamilton, Compliance Division Manager
- \*R. Swanson, Regulatory Affairs Manager
- \*L. Schmeling, Radiation/Chemistry Department Manager
- \*J. Kelly, Senior Compliance Engineer
- W. Grieves, Senior Quality Assurance Engineer
- \*D. O'Leary, Instrumentation and Controls Supervisor
- R. Hird, Access Authorization Supervisor
- E. Wagner, Vice President Nuclear Engineering
- R. Anderson, Vice President Operations

#### 1.2 NRC

- \*J. Macdonald, Senior Resident Inspector
- W. Olsen, Resident Inspector

\*denotes those present at the exit interview.

The inspectors also interviewed other licensee and contractor security personnel.

### 2.0 Follow-up of Previously Identified Items

2.1 (Closed) Unresolved Item (UNR) 50-293/90-16-01: During inspection 90-16, the inspectors found that assessment aids were not fully effective in several locations. During this inspection, the inspectors determined, by observation, that the licensee had corrected or effectively determined a long-term solution to correct the weaknesses. A purchase requisition (number 90-PDC-00080) has been submitted and approved for the equipment to correct this item. Based upon the licensee's action, this item is considered closed. The NRC will continue to monitor the licensee's progress to complete the installation of the additional equipment.

### 3.0 Management Support and Security Program Plans

3.1 Management Support - Management support for the licensee's security program was determined to be adequate by the inspectors' review of various aspects of the licensee's program during this inspection as documented in this report.

During this inspection, the inspectors had contact with several members of the contract security force. Personnel were knowledgeable of their duties and generally performed well. They were professional in their appearance, attitude and demeanor. No problems were identified.

- 3.2 Security Program Plans - The inspectors verified that changes to the licensee's NRC-approved Security, Contingency, and Training and Qualification Plans, as implemented, did not decrease the effectiveness of the respective plans, and had been submitted in accordance with NRC requirements.

4.0 Protected Area Physical Barriers, Detection and Assessment Aids

- 4.1 Protected Area (PA) Barrier - The inspectors conducted a physical inspection of the PA barrier on January 8, 1991. The inspectors determined, by observation, that the barrier was installed and maintained as described in the NRC-approved Physical Security Plan (the Plan). No deficiencies were noted.
- 4.2 Protected Area Detection Aids - The inspectors requested that the licensee conduct tests of the PA perimeter intrusion detection aids on January 8, 1991. Numerous tests were conducted around the entire perimeter and the inspectors determined that the detection aids are installed, maintained and operated as committed to in the Plan. No deficiencies were noted.
- 4.3 Isolation Zones - The inspectors verified that the perimeter isolation zones were adequately maintained to permit observation of activities on both sides of the PA barrier. No deficiencies were noted.
- 4.4 Protected Area and Isolation Zone Lighting - The inspectors conducted a lighting survey of the PA and isolation zones on January 8, 1991. The inspectors determined by observation and by use of the licensee's light meter that lighting in the PA and isolation zones was adequate. No deficiencies were noted.
- 4.5 Assessment Aids - The inspectors observed the PA perimeter assessment aids and determined that they were generally installed, maintained and operated as committed to in the Plan.

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The licensee's progress in this matter will be reviewed during a subsequent inspection.

4.6 Vital Area (VA) Barriers - The inspectors conducted a physical inspection of several VA barriers on January 8, 9, and 10, 1991. The inspectors determined by observation that the barriers were installed and maintained as committed to in the Plan. No deficiencies were noted.

4.7 Protected and Vital Area Access Control of Personnel and Packages

4.7.1 Personnel Access Control - The inspectors observed access control into the PA/VA on January 8 and 9, 1991, and determined that the licensee was exercising positive control. This determination was based on the following:

- 4.7.1.1 The inspectors verified that personnel are properly identified and authorization is checked through the security computer prior to issuance of badges and key-cards. No deficiencies were noted.
- 4.7.1.2 The inspectors verified that the licensee has a program to confirm the trustworthiness and reliability of employees and contractor personnel. This program includes psychological examinations and checks on employment, credit and criminal history, and pre-employment and random drug and alcohol testing. The records were well organized. It was noted that the licensee conducts thorough audits of self-screening contractors. Especially noteworthy is the licensee's practice of periodically contacting various employee references to verify that the background screening agencies are, in fact, contacting them by mail or phone as required. No deficiencies were noted.
- 4.7.1.3 The inspectors reviewed the security lock and key program and determined by observation that the program was consistent with commitments in the Plan. The individual that is presently maintaining the program is working to reduce the bulkiness of the documentation; progress was obvious. No deficiencies were noted.
- 4.7.1.4 The inspectors verified that the licensee takes precautions to ensure that an unauthorized name cannot be added to the PA access list by having a member of management review the list every 31 days. No deficiencies were noted.

- 4.7.1.5 The inspectors verified that the licensee has a search program, as committed to in the Plan, for firearms, explosives, incendiary devices and other unauthorized materials. The inspectors observed personnel access processing during shift changes, visitor access processing, and interviewed members of the security force and the licensee's security staff about personnel access procedures.

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The licensee committed to enhance training for security personnel in both areas. These areas will be reviewed during a subsequent inspection to ensure the licensee's actions are preventing recurrence of the deficiencies.

- 4.7.1.6 The inspectors determined, by observation, that individuals in the PA and VAs display their badges as required. No deficiencies were noted.
- 4.7.1.7 The inspectors verified that the licensee has escort procedures for visitors into the PA and VA. No deficiencies were noted.
- 4.7.1.8 The inspectors verified that unescorted access to VAs is limited to authorized individuals. The access list is revalidated at least once every 31 days as committed to in the Plan. No deficiencies were noted.

- 4.8 Package and Material Access Control - The inspectors determined that the licensee was exercising positive control over packages and material that are brought into the PA at the personnel access centers and the central warehouse. The inspectors observed package and material processing and interviewed SFMs about package and material control. Other than the concern noted in paragraph 4.7.1.5, no deficiencies were noted.
- 5.0 Alarm Stations and Communications - The inspectors observed the operations in the Central Alarm Station (CAS) and determined that the station was maintained and operated as committed to in the Plan. Alarm station operators interviewed by the inspectors were found to be knowledgeable of their duties and responsibilities. The inspectors verified that the CAS operators do not have any operational responsibilities that would interfere with their assessment and response functions. The inspectors verified that the licensee has communications with local law enforcement agencies as committed to in the Plan. No deficiencies were noted.
- 6.0 Power Supply - The inspectors verified that there are several systems (batteries, dedicated diesel generator, and plant on-site AC power) that provide backup power to the security system. At least one of the backup power supplies is located in a vital area. During inspection 90-16, the inspectors identified a poor housekeeping condition in the security diesel generator room. During this inspection, the inspectors determined by observation that housekeeping conditions in this area have improved. No deficiencies were noted.
- 7.0 Testing, Maintenance and Compensatory Measures
- 7.1 The inspectors reviewed the testing and maintenance records and confirmed that the records committed to in the Plan were on file and readily available for licensee and NRC review. The station provides instrumentation and controls (I&C) technicians to conduct preventive and corrective maintenance on security equipment. No deficiencies were noted.
- 7.2 The inspector also reviewed the licensee's use of compensatory measures and determined them to be as committed to in the Plan. No deficiencies were noted.
- 8.0 Security Training and Qualification
- 8.1 The inspectors randomly selected and reviewed the training and qualification records for 16 SFMs. Physical qualifications and firearms qualification records were also reviewed. These records were for armed, unarmed, and supervisory personnel. The inspectors determined that training had been conducted in accordance with the security program plans and that it was properly documented. However, during a review of lesson plans, an instructor presented a book of lesson plans that he had personally developed and used to

conduct training classes. Those lesson plans were not formally approved. The licensee was made aware of this inconsistency and committed to ensuring that only approved lesson plans are in use in training sessions. This area will be reviewed during a subsequent inspection.

- 8.2 During inspection 90-16, the charts or graphs of the vision and hearing tests for members of the security force were not in physical qualification folders. The licensee stated that they were maintained in the individual's medical files. The licensee committed to centralizing all qualification records. During this inspection, all SFM records had the hearing and vision exams, as well as all other qualification records on file and the inspectors determined that the licensee has taken permanent corrective action. No deficiencies were noted.

#### 9.0 Exit Interview

The inspectors met with the licensee's representatives indicated in paragraph 1 at the conclusion of the inspection on January 11, 1991. At that time, the purpose and scope of the inspection were reviewed and the findings were presented. The licensee's commitments, as documented in this report, were reviewed and confirmed with the licensee.