

SAFEGUARDS INFORMATION
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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

License/Docket/Report Nos.: NPF-39/50-352/94-03; NPF-85/50-353/94-03

Licensee: PECO Energy Company
2301 Market Street
Philadelphia, Pennsylvania

Facility Name: Limerick Generating Station, Units 1 and 2,
Limerick, Pennsylvania

Inspection Dates: January 31 - February 4, 1994

Inspectors: *Edward B. Ratta* 2/25/94
A. Della Ratta, Physical Security Inspector Date

Edward B. Albert 2/25/94
R. J. Albert, Physical Security Inspector Date

Approved By: *E. C. McCabe, Jr.* 2/25/94
E. C. McCabe, Jr., Chief, Safeguards Section Date
Division of Radiation Safety and Safeguards

Scope

Management Support and Audits; Protected and Vital Area Physical Barriers, Detection and Assessment Aids; Protected and Vital Area Access Control of Personnel, Packages and Vehicles; Compensatory Measures; and Actions on Previously Identified Inspector Follow-Up Item.

Results

The licensee's physical security program was generally directed toward assuring public health and safety. Management support for the program was evident through the implementation of several program enhancements to increase its effectiveness. One previously opened Inspector Follow-Up Item was closed.

Three apparent violations of NRC requirements were identified: (1) Failure to follow personnel access and equipment surveillance procedures at the main personnel access control point; (2) failure to search two covered cargo areas of a vehicle as required; and (3) failure to provide an escort other than the vehicle escort for the unsearched material on a vehicle. Also, potential weaknesses were identified in assuring the operation of portable security lighting and in personnel searches.

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Details

1.0 Key Personnel Contacted

1.1 Licensee and Contractor Personnel

- * D. Helwig, Vice President, Limerick Generating Station (LGS)
- * M. Karney, Manager, Security - LGS
- * R. Gill, Senior Vice President, Nuclear Operations, Protection Technology, Inc. (PTI)
- * C. Adams, Director - Site Support Services - LGS
- * G. Stewart, Experience Assessment Engineer - LGS
- * R. Kester, Site Captain, PTI
- * B. Lux, Investigator - LGS
- * R. Bixler, Corporate Security
- * J. Karkoska, Chief Security Coordinator
- L. Weikel, Chief Security Coordinator - LGS
- N. Canci, Shift Security Coordinator - LGS
- W. Semple, Technical Assistant, LGS

1.2 U.S. Nuclear Regulatory Commission - Region I

- * E. McCabe, Chief, Safeguards Section
- * N. Perry, Senior Resident Inspector
- * R. Temps, Project Engineer
- T. Easlick, Resident Inspector

* present at the exit interview

The inspectors also interviewed other licensee and contract security force personnel.

2.0 Follow-Up on Previously Identified Items

2.1 (Closed) IFI 50-352/93-10-01 and 50-353/93-10-01

During inspection in April 1993, the inspectors observed licensee surveillance testing of the search equipment located at the main access control point and noted that two out of six explosives detectors failed to satisfy the licensee's testing criteria. The inspectors determined, based on an interview with an I&C technician, that the equipment failures were due to accumulated dust in the air filters. That restricted the air flow needed to cool the collector disc, increasing the temperature of the collector discs and lessening the sensitivity of the detectors. To resolve this matter, the licensee planned to increase the frequency of I&C inspections of the detectors to once every 5 days. During this inspection the inspectors reviewed the maintenance records for the explosives detectors and determined that the equipment was being serviced at least once every 5 days. There was an accompanying decrease in equipment failures. This matter is closed.

3.0 Management Support and Audits

3.1 Management Support

Management support for the licensee's physical security program was evident, based on the program enhancements described below and on the inspectors' review of various aspects of the licensee's program during this inspection, as documented in this report.

Security program enhancements made since the last inspection in April 1993 (50-352/93-10 and 50-353/93-10) were as follows:

- Purchased and distributed new telephone headsets to Central Alarm Station (CAS) and Secondary Alarm Station (SAS) operators;
- Purchased a video capture system;
- Three Security Instructors and three Security Shift Coordinators received tactical team operations training;
- All Security Force Members (SFM) received 40 hours of BWR Fundamentals Training;
- Support and provision of site training for Federal, State and Local Law Enforcement Agencies; and
- Receipt of on-site Ordnance and Explosive Training (video taped for future training use) from the Philadelphia Bomb Squad.

Based upon the inspectors' review of the security program and the efforts being made to upgrade and enhance it, the inspectors determined that the program was continuing to receive appropriate management attention and support.

3.2 Audits

The inspectors reviewed the licensee's 1993 Nuclear Quality Assurance Audit of the security program, Report A0730368 dated June 28, 1993. The inspectors verified that the audit had been planned and carried out in accordance with the NRC-approved physical security plan (the Plan). The audit was very comprehensive in scope, and the results were reported to the appropriate level of management. No adverse findings were reported. The documented licensee corrective actions for the one audit recommendation appeared appropriate.

No audit deficiencies were noted.

4.0 Protected and Vital Area Physical Barriers, Detection and Assessment Aids

4.1 Protected Area (PA) Barriers

The inspectors physically inspected the PA barrier on February 1, 1994, and determined by observation that the barrier was installed and maintained as described in the Plan.

4.2 PA Detection Aids

The inspector observed routine licensee surveillance testing of the PA perimeter intrusion detection system (IDS) on February 2, 1994. Numerous tests were conducted at a certain perimeter zone, and the inspectors determined that the IDS was installed, maintained and operated as committed to in the Plan.

4.3 Isolation Zones

The inspectors verified that the isolation zones were adequately maintained to permit observation of activities on both sides of the PA barrier.

4.4 Assessment Aids

The inspectors observed the PA perimeter assessment aids, during daylight and darkness, and determined that they were installed and operated as committed to in the Plan.

4.5 PA and Isolation Zone Lighting

On February 2, 1994, during darkness, the inspectors surveyed the PA and isolation zones to determine if lighting met the minimum requirement of 0.2 footcandles. They were accompanied by the licensee's Shift Security Coordinator and used the licensee's calibrated light meter. Lighting was found adequate except for the accesses to dark areas in two adjoining Sea Vans with doors that could not be closed due to accumulated ice and snow. The licensee had previously noted this problem and installed portable lighting inside these Sea Vans. However, both electric plugs had been disconnected, and the van interiors were below 0.2 footcandle requirement. The Security Shift Coordinator immediately replugged the cords to an electric outlet. This was identified as a program weakness. (Inspector Follow-Up Item 50-352/94-03-01 and 50-353/94-03-01).

4.6 Vital Area (VA) Barriers

The inspectors physically inspected selected VA barriers on February 4, 1994, and determined by observation that the barriers were installed and maintained as described in the Plan.

Except as noted in Section 4.5, no problems were identified in these areas.

5.0 Protected and Vital Area Access Control of Personnel, Packages and Vehicles

5.1 Personnel Access Control

The inspectors determined that the licensee was exercising positive control over personnel access to the PA and VAs. This determination was based on the following:

- 5.1.1 The inspectors verified by observation that personnel were properly identified and authorization was checked prior to issuance of badges and key cards.
- 5.1.2 The inspectors verified by observation and a review of procedures that the licensee was implementing a search program for firearms, explosives, incendiary devices and other unauthorized materials as committed to in the Plan. The inspectors also observed both plant and visitor personnel access processing during peak and off-peak traffic periods on February 1, 2 and 4, 1994.

On February 2, 1994, while observing access control activities and surveillance tests of equipment located at the main access control point, the inspectors observed the following: an individual who failed the walk-through metal detector search was allowed by an SFM to retrieve his cleared articles from the x-ray discharge prior to being searched with the hand-held metal detector; and an individual who failed the walk-through metal detector search was not kept under observation by the SFM until after the hand-held metal detector search was conducted - the SFM left this individual unattended in the search area while obtaining the hand-held metal detector; and an SFM was about to perform the surveillance test of the walk-through metal detectors without removing a belt buckle from his person. (The inspectors requested that he remove the belt buckle prior to conducting the tests.)

Limerick Generating Station, Units 1 and 2, Technical Specifications, Amendments 47 (Unit 1) and 10 (Unit 2), dated October 4, 1990, Section 6.8.1.e, Administrative Controls, require that written procedures for Security Plan implementation be established, implemented, and maintained.

Plant Protection Procedure PP-013, Revision 14, Paragraph 5.4 requires that, after successfully passing through the explosives detector and metal detector, personnel will be permitted to retrieve their cleared articles from the x-ray discharge and proceed to the area beyond the search equipment. Paragraph 5.7.4 requires that all persons who require a pat-down search

or hand-held metal detector search will be kept under observation until after the appropriate search is conducted.

Surveillance Test Procedure ST-07-084-311-0, Revision 15, Section 7.4.2, Walk-Through Metal Detectors, states in part that the Security Force Member will remove all metals practicable from his/her person (i.e., rings, wrist watches, coins, keys, belt buckles, or other metallic objects) prior to conducting this test.

Failure to search personnel and surveil the walk-through metal detectors at the main personnel access control point in the manner required by the licensee's Technical Specifications, Plant Protection and the Surveillance Test Procedures are examples of an apparent violation of NRC requirements. (VIO 50-352/94-03-02 and 50-353/94-03-02)

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5.2 Package and Material Access Control

The inspectors determined that the licensee was exercising positive control over packages and materials bought into the PA through the main access portal (except as noted in Section 5.1.2). The inspectors also observed package and material processing and interviewed members of the security force and the licensee's security staff about package and material control procedures. No deficiencies were noted.

5.3 Vehicle Access Control

The inspectors assessed control of vehicle access into and within the PA. Vehicles were properly authorized prior to being allowed to enter the PA. Identification was verified by an SFM at the main access portal. This was consistent with the commitments in the Plan. The inspectors also reviewed the vehicle search procedures and determined that they were consistent with commitments in the Plan. On February 4, 1994, while observing a vehicle search, the inspectors observed that an SFM failed to search two covered cargo areas located on the lower right side of the vehicle. The inspectors informed the SFM of the covered cargo areas, which were then opened and searched.

Section 3.2.2 of the licensee's Physical Security Plan, Paragraph 1, required a search of all vehicles, prior to entry into the Protected Area, for firearms, explosives, and

incendiary devices. The vehicle areas to be searched included the cab, engine compartment, undercarriage and cargo areas.

Failure to perform a vehicle search at the main vehicle access portal as required by the Plan is an apparent violation of NRC requirements. (VIO 50-352/94-03-04 and 50-353/94-03-04)

On February 1, 1994, the inspectors reviewed a sample of the licensee's vehicle access control activity records and identified that, on November 19, 1993, the licensee allowed a vehicle with unsearched material to enter the PA without providing a SFM, in addition to the vehicle escort, to escort and maintain security observation of the material. In this case, the licensee authorized the use of a security lock to secure the container of unsearched material in lieu of providing a second escort, with no such authorization allowed by the Plan and procedures.

Limerick Generating Station, Units 1 and 2, Technical Specifications, Appendix A, Amendments 47 (Unit 1) and 10 (Unit 2), dated October 4, 1990, Section 6.8.1.e, Administrative Controls, require that written procedures be established, implemented, and maintained for Security Plan implementation.

Protection Procedure PP-019, Revision 14, Paragraph 5.3, requires in part that vehicles entering the protected area with unsearched material be escorted by a Security Force Member in addition to the vehicle escort. Also, Plant Protection Procedure PP-013, Revision 14, Paragraph 5.11.8, states in part that unsearched material entering the Protected Area shall be under security observation until all requirements of PP-013 are met. It also specifies that Security Force Members assigned to escort unsearched material will be in addition to those assigned to escort vehicles.

Failure to assign an SFM to escort and maintain security observation of the unsearched material on a vehicle entering the PA, in addition to the vehicle escort, and as required by the licensee's Technical Specifications and Plant Procedures, is an apparent violation of NRC requirements. (VIO 50-352/94-03-05 and 50-353/94-03-05)

6.0 Compensatory Measures

The inspectors reviewed the licensee's use of compensatory measures and found them to be as committed to in the Plan. No deficiencies were identified.

7.0 Exit Interview

The inspectors met with the licensee representatives identified in Section 1.0 at the conclusion of the inspection on February 4, 1994. At that time, the purpose and scope of the inspection were reviewed and preliminary NRC findings were presented. The licensee representatives acknowledged the inspection findings and stated that corrective actions were being undertaken.