

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

Report Nos. 50-352/92-07
50-353/92-06

Docket Nos. 50-352
50-353

License Nos. NPF-39
NPF-85

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania

Facility Name: Limerick Generating Stations, Units 1 and 2

Inspection At: Limerick, Pennsylvania

Inspection Conducted: January 27-31, 1992

Inspectors: Arthur Della Ratta 2/14/92
A. Della Ratta, Physical Security Inspector date

G. C. Smith 2/14/92
G. C. Smith, Senior Security Specialist date

Approved By: R. R. Keimig 2-14-92
R. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Areas Inspected: Onsite followup of Previously Identified Security and Fitness-for-Duty (FFD) Items; Management Support, Security Program Plans and Audits; Protected and Vital Area Physical Barriers; Detection and Assessment Aids; Protected and Vital Area Access Control of Personnel, Packages and Vehicles; Alarm Stations and Communications; Power Supply; Testing, Maintenance and Compensatory Measures; and Security Training and Qualification.

Results: The licensee was found to be in compliance with the NRC requirements in the areas inspected. Four inspector followup security items, one non-cited security violation, one unresolved FFD item and six open FFD items were closed.

DETAILS

1.0 Key Personnel Contacted

1.1 Licensee and Contractor Personnel

R. Costagliola, Manager Support Division, Limerick Generating Station (LGS)
R. Gill, Security Branch Head-LGS
R. Weindorfer, Manager, Nuclear Plant Security and Safety-Corporate
* D. Sarley, Manager, Fitness-for-Duty-Corporate
G. Gibson, Vice President, Nuclear Operations, Protection Technology Inc.
(PTI)
R. Kester, Site Captain, PTI
L. Weikel, Chief Security Coordinator-LGS
W. Semple, Technical Assistant, Security-LGS
D. Monkiewicz, Analyst, Security-LGS
D. Merrick, Supervisor, Personnel Processing-LGS
J. Karkoska, Security Shift Coordinator-LGS
R. Bixler, Corporate Security
D. Shutt, Licensing-LGS
C. Heimbach, Operations Lieutenant-PTI
J. Cambell, Operations Support Sergeant-PTI
K. Pindjak, Training Coordinator-PTI
R. Moyer, Administration Assistant-PTI
N. Metcalf, Assistant Regional Director-PTI
T. Straub, Regional Director-PTI

1.2 U. S. Nuclear Regulatory Commission

T. Kenny, Senior Resident Inspector

* With the exception of Mr. D. Sarley, all of the above personnel were present at the exit meeting. Other PECO and PTI personnel, including members of the security force, were interviewed during the inspection.

2.0 Followup of Previously Identified Items

2.1 (Closed) IFI 50-352/90-05-01 and 50-353/90-04-01

During inspection 50-352/90-05 and 50-353/90-04, the inspectors determined, by reviewing the licensee's protected area (PA) intrusion detection system (IDS) testing procedures and by interviewing Security Force Members (SFM) and instrumentation and controls (I&C) technicians, that the testing, as performed, would not always detect system deficiencies. The licensee committed to revising the testing procedures to test the system more aggressively. During this inspection, the inspectors determined, through a

review of the revised PA-IDS testing procedures and observations of the licensee's tests performed on selected alarm zones of the PA-IDS, that the procedures now fully test the effectiveness of the system and includes a separate testing procedure for each alarm zone to address different terrain characteristics. No deficiencies were noted.

2.2 (Closed) IFI 50-352/90-05-02 and 50-353/90-04-02

During inspection 50-352/90-05 and 50-353/90-04, the inspectors noted several potential weaknesses in the PA perimeter assessment system. The licensee committed to correcting these potential weaknesses with more aggressive I&C support. The inspectors' review of the PA perimeter assessment system on January 29, 1992 disclosed that all of the previous potential weaknesses in the assessment system had been corrected. The inspectors also noted an aggressive repair program including a comprehensive preventive maintenance (PM) program, the installation of additional assessment aids and the relocation of existing assessment aids to improve the effectiveness of the system. No deficiencies were noted.

2.3 (Closed) IFI 50-352/90-05-03 and 50-353/90-04-03

During inspection 50-352/90-05 and 50-353/90-04, the inspectors determined, from interviews with members of the licensee's security staff and the I&C supervisor, that there was not a formal PM program for all security systems equipment and that maintenance was largely reactive. The licensee committed to implement a PM program for all security systems and equipment and to provide priority maintenance support for the security program. During this inspection, the inspectors determined that the licensee developed and implemented a comprehensive PM program. Also, security management now participates in the prioritization of maintenance for security equipment. A review of the licensee's maintenance records disclosed that the maintenance of security equipment is being performed in a timely manner. No deficiencies were noted.

2.4 (Closed) IFI 50-352/90-05-04 and 50-353/90-04-04

During inspection 50-352/90-05 and 50-353/90-04, the inspectors' review of the licensee's use of compensatory measures determined that an ineffective IDS at a certain location resulted in the use of a compensatory guard post for approximately four years. Even though the engineering work had been completed, and all that remained was the installation of a new IDS, permanent correction of the situation was not anticipated for at least another six months. The licensee committed to expedite the installation and expected it to be completed during May 1990. During this inspection, the inspectors found that

the licensee had installed a state-of-the-art IDS at that location in February 1990 and eliminated the compensatory post in March 1990, after the effectiveness of the new IDS had been confirmed. No deficiencies were noted.

2.5 (Closed) NCV 50-352/91-12-01

During inspection 50-352/91-12 and 50-353/91-13, an apparent violation was reviewed that was identified by the licensee. The apparent violation resulted from a SFM failing to follow procedures for a lost vital area badge and key card. Subsequent to the inspection the NRC held an Enforcement Conference with the licensee. The NRC determined that the violation met the criteria specified in the NRC's enforcement policy (10 CFR 2, Appendix C, Section V.G) for non-cited violations, and the violation was not cited. During this inspection, the inspectors confirmed that the actions taken by the licensee to preclude recurrence of such violations were still in place and effective. No deficiencies were noted.

2.6 (Closed) UNR 50-352/91-06-01 and 50-353/91-07-01

During the initial Fitness-for-Duty (FFD) inspection, 50-352/91-06 and 50-353/91-07, the inspector, upon reviewing the FFD supervisory training records, could not conclusively determine that all of the supervisory FFD training requirements had been met. While all training requirements appeared to be current, the documentation did not provide a tracking mechanism to determine when the training was required and when it was accomplished. The licensee committed to modify the method used to track the required FFD supervisory training so that it could be easily tracked. During this inspection, the inspectors determined, through discussions with the FFD Manager and a review of documents, that the licensee modified the method of tracking required FFD training data in the Test Personnel Information Management Systems (TPIMS). Also, all licensee employees selected for supervisory positions must complete the Supervisory Development Academy Course that now includes the FFD supervisory training, prior to being promoted to a supervisor. Additionally, the licensee has a consultant under contract to develop a program to enhance the Human Resources Management System to include job position codes, which will correlate to supervisory assignments. The inspectors found these actions to be adequate to resolve this matter. No deficiencies were noted.

2.7 The inspectors reviewed the licensee's actions on open items, noted during the initial FFD inspection, as documented in report Nos. 50-352/91-06 and 50-353/91-07. The inspectors determined through discussions with the FFD Manager and a review of documents that the licensee has:

- Revised its lesson plans for a refresher FFD awareness and supervisory training to ensure that all employees are aware that no action can or will be taken on presumptive positive drug screens;
- Established a secured area for the computer that is used to generate a random selection list for FFD testing;
- Developed and implemented a computer safeguards feature to account for all random lists generated in order to prevent unauthorized manipulation of the random selection process;
- Revised procedures for access to sensitive information, to ensure it is limited to individuals with a "need-to-know", by requiring a telephone contact prior to the transmission of facsimile FFD results;
- Revised Section 3.1.3(a) of "Philadelphia Electric Company and Subsidiary Companies Official Bulletin" on April 1, 1991, regarding employees with unescorted station access who are returning from long-term absence, to indicate that pre-access testing is required for all employees who are not covered by both random testing and behavioral observation in excess of 60 days; and
- Provided trained collection personnel of both genders at the collection sites in the event that an observed specimen collection is required.

The inspectors' review of the licensee's corrective actions on these items during this inspection, found the actions to be adequate. No deficiencies were noted.

3.0 Management Support, Security Program Plans and Audits

3.1 Management Support

Management support for the licensee's physical security program was determined to be consistent with program needs. This determination was based upon 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 physical security inspection (50-352/91-12 and 50-353/91-13) are as follows:

- Purchased new uniforms for the contractors security force;

- Increased involvement of security in operations plan-of-the-day and outage meetings;
- Conducted a meeting and presentation on June 19, 1991, for State and Local Law Enforcement personnel;
- Renovated the Guardhouse and Entry Search Area in order to expedite search procedures while enhancing effectiveness, which included new explosive detectors, new metal detectors and x-ray equipment upgrades;
- Completed the upgrade of the security lighting to achieve consistent ambient light levels in the protected area and isolation zones;
- Upgraded the assessment system, which included adding state-of-the-art assessment aids to the system and relocating of pre-existing assessment aids to provide more effective assessment; and
- Upgraded the IDS, which included the installation of additional detection aids.

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 is continuing to receive appropriate management attention and support.

3.2 Security Program Plans

The inspector verified that changes to the licensee's Guard Training and Qualification Plans (T&Q), as implemented, did not decrease the effectiveness of the plan, and had been submitted in accordance with NRC requirements.

3.3 Audits

The inspectors reviewed the 1990 and 1991 annual security program audit reports and verified that the audits had been conducted in accordance with the NRC-approved Physical Security Plan (the Plan). These audits were performed by the licensee's quality assurance (QA) group. The 1991 QA audit team was supplemented by two technical consultants and two members of the Corporate Nuclear Plant Security and Safety Section as Technical Specialists. The use of personnel with security expertise appeared to improve the scope and effectiveness of the audit. The results of the audits were reported to the appropriate level of management and the corrective actions taken appeared appropriate. No deficiencies were noted.

To supplement the NRC-required annual program audit, the licensee is continuing to implement a self-assessment program of security activities. The assessments were reviewed by the inspectors and were determined to be very thorough and objective. Appropriate corrective actions were noted to have been recommended and implemented, where applicable.

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

4.1 Protected Area Barriers

The inspectors conducted a physical inspection of the PA barriers on January 29, 1992, and determined by observation that the barriers are installed and maintained as described in the Plan. No discrepancies were noted.

4.2 Protected Area Detection Aids

The inspector requested that the licensee conduct tests of the PA perimeter IDS on January 29, 1992. Numerous tests were conducted around the entire perimeter and the inspectors determined that the IDS was installed, maintained and operated as committed to in the Plan. No deficiencies were noted. (See further comments in Section 2.1)

4.3 Isolation Zones

The inspectors verified that the isolation zones were adequately maintained to permit observation of activities on both sides of the protected area barrier. No deficiencies were noted.

4.4 Assessment Aids

The inspectors observed the PA perimeter assessment aids and determined that they were installed and operated as committed to in the Plan. No deficiencies were noted. (See further comments in Section 2.2)

4.5 Protected Area and Isolation Zone Lighting

The inspectors conducted a lighting survey of the PA and isolation zones on January 29, 1992. The inspectors determined by observation that lighting in the PA and isolation zones was in accordance with commitments in the Plan. No deficiencies were noted. (See further comments in Section 3.1)

4.6 Vital Area Barriers

The inspectors conducted a physical inspection of selected vital area (VA) barriers on January 28, 1992, and determined by observation that the barriers were installed and maintained as described in the Plan. No deficiencies were noted.

4.7 Vital Area Detection Aids

The inspectors observed licensee conducted tests of selected VA IDS alarms on January 28, 1992, and determined that they were installed, maintained and operated as committed to in the Plan. No deficiencies were noted.

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's and VA's. This determination was based on the following:

- The inspectors verified that personnel were properly identified and authorization was checked prior to issuance of badges and key cards. No deficiencies were noted.
- The inspectors verified that the licensee was implementing a search program for firearms, explosives, incendiary devices and other unauthorized materials as committed to in the Plan. No deficiencies were noted.
- The inspectors observed personnel access processing during peak and off-peak periods. The inspectors interviewed members of the security force and licensee's security staff about personnel access procedures. No deficiencies were noted.
- The inspectors determined, by observation, that individuals in the PA and VAs displayed their access badges as required. No deficiencies were noted.
- The inspectors verified that the licensee has a program to confirm the trustworthiness and reliability of employees and contractor personnel. No deficiencies were noted.

- The inspectors verified that the licensee has escort procedures for visitors in the PA and VAs. No deficiencies were noted.
- The inspectors verified that the licensee has a mechanism for expediting access to vital equipment during emergencies and that the mechanism is adequate for its intended purpose. No deficiencies were noted.
- The inspectors verified that unescorted access to VAs is limited to authorized individuals with a right and need to work in the areas. The access list is revalidated at least once every 31 days as committed to in the Plan. No deficiencies were noted.

5.2 Package and Material Access Control

The inspectors determined that the licensee was exercising positive control over packages and materials that are brought into the PA at the main access control center. The inspectors reviewed the package and material control procedures and found that they were consistent with commitments in the Plan. The inspectors also observed package and material processing and interviewed security officers (SOs) and the licensee's security staff about package and material control procedures. The inspectors noted that a "Guard Mount Announcement," issued on January 2, 1992, indicated that when only one officer is posted in the entry area and the entry must be temporarily closed to allow the officer to tend to other business, any personnel who processed through the explosives detector and weren't observed, as well as any hand carried items, must again pass through the detector. The "Guard Memo Announcement" had a deletion date of January 9, 1992. When the inspectors questioned the licensee regarding this announcement, the licensee stated that it was deemed to be a prudent practice and that Post Order 1 "Admin/TSC Building Entry Area" had been revised on January 7, 1992 to reflect this practice. The inspectors' review of the applicable instructions, i.e., the previous revision of Post Order 1, dated September 9, 1991, as well as PP-013, "Search" dated August 21, 1991, and PP-023, "Operation of Search Train Equipment", dated September 30, 1991, found that this precaution had not been included. The inspectors agreed that the recently initiated practice was prudent. No deficiencies were noted.

5.3 Vehicle Access Control

The inspectors determined that the licensee properly controls vehicle access to and within the PA. The inspectors verified that vehicles are properly processed prior to entering the PA and that the process was consistent with commitments in the Plan. The inspectors also reviewed the vehicle search procedures and determined they were consistent with commitments in the Plan.

This determination was made by observing vehicle processing and search, inspection of vehicle logs and by interviewing SOs and licensee's security staff about vehicle processing and search procedures. No deficiencies were noted.

6.0 Alarm Stations and Communications

The inspectors observed the operations of the Central Alarm Station (CAS) and the Secondary Alarm Station (SAS) and determined that they were maintained and operated as committed to in the Plan. CAS and SAS operators were interviewed by the inspectors and found to be knowledgeable of their duties and responsibilities. The inspectors verified that the CAS and SAS do not contain any operational activities that would interfere with assessment and response functions. No deficiencies were noted.

7.0 Emergency Power Supply

The inspectors verified that there are several systems (batteries, diesel generators within a VA, and plant on-site AC power) that provide backup power to the security systems. The inspectors reviewed the test and maintenance records and procedures for these systems and found that they were consistent with the Plan. No deficiencies were noted.

The inspectors also verified that the door access control system for VAs will permit ingress and egress when normal power is lost.

8.0 Testing, Maintenance and Compensatory Measures

8.1 The inspectors reviewed testing and maintenance records and confirmed that the records committed to in the Plan were on file and readily available for NRC and licensee review. The station provides instrumentation and controls technicians to conduct preventive and corrective maintenance. A check of repair records indicated that maintenance and testing are accomplished in a timely manner. No deficiencies were noted. (See additional comments in Section 2.3)

8.2 The inspectors reviewed the licensee's use of compensatory measures and determined them to be as committed to in the plan. No deficiencies were noted. (See additional comments in Section 2.4)

9.0 Security Training and Qualification

The inspectors randomly selected and reviewed the physical and firearms training and qualification records for ten SOs, including supervisory personnel. No deficiencies were noted.

10.0 Exit Interview

The inspectors met with the licensee representatives indicated in Paragraph 1 at the conclusion of the inspection on January 31, 1992. At that time, the purpose and scope of the inspection were reviewed and the findings were presented.