

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-352/87-03

Docket No. 50-352

License No. NPF-39

Licensee: Philadelphia Electric Company
2301 Market Street
Philadelphia, Pennsylvania 19101

Facility Name: Limerick Generating Station, Unit 1

Inspection At: Limerick, Pennsylvania

Inspection Conducted: January 6 - 9, 1987

Date of Last Physical Security Inspection: September 16 - 19, 1986

Type of Inspection: Routine, Unannounced Physical Protection

Inspector: *R. J. Bailey* 2-17-87
R. J. Bailey, Physical Security Inspector date

Approved by: *R. R. Keimig* 2-17-87
R. R. Keimig, Chief, Safeguards Section date
Division of Radiation Safety and Safeguards

Inspection Summary: Routine, Unannounced Physical Protection Inspection,
January 6 - 9, 1987 (Inspection No. 50-352/87-03).

Areas Inspected: Follow-up on a previously identified violation; Status of Inspector Follow-up Item; Independent Inspection Effort; Management Effectiveness; Security Organization; Records and Reports; Lighting; Access Control (Personnel) and Training and Qualification.

Results: The licensee was in compliance with NRC requirements in the areas examined.

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DETAILS

1. Key Persons Contacted

J. F. Franz, Manager, Limerick Generating Station
R. F. Weindorfer, Director, Nuclear Security
P. R. Supplee, Nuclear Security Analyst
F. J. Larkin, Nuclear Security Specialist
D. B. Neff, Compliance Engineer
J. F. Rubert, Supervisor, Quality Assurance
M. V. Annast, Senior Vice President, Yoh Security, Inc.
C. J. Mannila, Performance Analyst, Yoh Security, Inc.
J. D. McDonald, Program Manager, Yoh Security, Inc.
E. M. Kelly, NRC Senior Resident Inspector

The inspector also interviewed other licensee and Yoh Security personnel.

2. Exit Interview

The inspector met with the licensee representatives listed in paragraph 1 on January 9, 1987, and discussed the scope and results of the inspection.

No written material was provided to the licensee during this inspection.

3. Follow-up on a Previous Violation

(Closed) Violation 50-352/86-19-03: Surveillance of certain isolation zones and portions of the protected area barrier were impaired. The inspector observed that the licensee took the following corrective actions to prevent recurrence of this violation.

- a. Written instructions were provided to the security force contractor outlining the scope of the problem and corrective actions to be implemented (Letter dated September 19, 1986).
- b. The security procedures and training lesson plans were revised to include the appropriate actions to be followed to compensate for such surveillance problems.
- c. The security force contractor's Performance Analysis Group (PAG) conducted eight drills for the Central and Secondary Alarm Station operators. These drills were designed to evaluate operator performance and to conduct retraining on the revised security procedures.
- d. Assessment aids were corrected to provide more effective coverage of the isolation zones.

4. Status of Inspector Follow-up Items (IFI)

(Closed) IFI 50-352/86-15-01: Provide expeditious access to vital areas during emergencies. The inspector observed that the licensee had instituted measures to ensure prompt access to vital areas during emergencies.

(Closed) IFI 50-352/86-19-01: Different scoring ranges for plant employees and contractors on one scale of the Minnesota Multiphasic Personality Inventory (MNPI). The inspector determined, through discussions with the licensee's Medical Director and other industry professionals involved in psychological testing, that the difference is not significant. It does not appear to be unusual for evaluators to use slightly varying ranges for scoring.

5. Independent Inspection Effort

During this inspection, the inspector conducted a follow-up review into the concerns that were previously identified and discussed with a former member of the security force in a telephone conversation with NRC Region I representatives on June 11, 1986 (see NRC IR No. 50-352/86-15). These additional findings by the inspector represent further clarification of the inspector's findings that were previously provided to the alleged. Neither of the concerns could be factually substantiated because of the lack of specific information from the alleged. However, the bases for the concerns will be monitored by NRC during subsequent inspections.

a. Concern: Cleaning personnel were allowed access to the Central Alarm Station (CAS) without using a key card.

Finding: The alleged provided no specific examples of this concern. The inspector found, through interviews with licensee management and contractor security personnel, that there were no events brought to their attention that involved cleaning personnel gaining access to the CAS without using a key card. Unless an individual gained access to the CAS by following an individual who properly used his key card (tailgating), the condition described by the alleged should not occur. Since the CAS is always manned by a contract security supervisor, such an infraction of security procedures should not have gone unnoticed and uncorrected. If it did, it would violate the licensee's security procedures. Anyone on site who observes an infraction of security procedures is required by the licensee to report the infraction to his/her supervision or the security department.

b. Concern: Security force members were not recording all contingency events as required by Security Plant Procedure 38 (PP-38), for example, loss of lighting in the protected area.

Finding: The inspector reviewed numerous events that had been reported and recorded by security force personnel since 1985. Only two minor cases concerning the loss of lighting in the protected areas were reported and recorded since 1985. The inspector determined that, based on the large number of reports on file that had been recorded since 1985, there was no reason to believe that security force officers were not actively reporting and recording events as required by the approved security procedures.

6. Management Effectiveness

During this inspection, the inspector observed that the licensee and security force contractor continued to aggressively pursue their planned course of action to identify and correct the root causes of their previously identified poor performance. To improve the overall performance of the security organization, the licensee developed and implemented several significant organizational changes and security program upgrades. A corporate staff position of Director of Nuclear Security was established in the newly created Nuclear Services Department with responsibility for the management and oversight of the PECO nuclear security program. The Director of Nuclear Security and a Technical Analyst are assigned to carry out this responsibility. The licensee further allocated significant capital and created eight senior security supervisor positions to provide 24 hour oversight of the contract security force at Limerick. The responsibilities of these supervisors will include assuring that the contractor properly implements the licensee's security program and that the security force maintains a high level of performance.

To instill in the security force personnel a strong sense of purpose and a clear understanding of their role and responsibilities, the security force contractor made changes in its supervisory staff, implemented numerous human factors improvements and refined the training program. A new on-site Program Manager was hired and a new Captain and CAS/SAS Sergeant were assigned. The licensee and contractor anticipate that these personnel changes will provide stronger direction and will be able to elicit increased and dedicated support from other security force personnel.

To combat earlier problems of low morale and job dissatisfaction in the security force, the security contractor aggressively addressed employees' concerns regarding pay, benefits and human factors. Overtime hours were substantially reduced and additional personnel were hired to meet the various non-nuclear security duties that were previously assigned to members of the security force. Broadened recruiting, to reach a larger population and to attract higher quality candidates, was also initiated.

Other methods to improve performance were also developed and in use during this inspection. A training curriculum was developed to outline the purpose and performance objectives of the training program. Random testing and surveillance of the security force's performance and qualifications was being conducted. The training staff was expanded and two members have

received further specialized training to better administer the training program. Lesson plans were reviewed by the security contractor and licensee. The licensee stated that this review process was essential in order to ensure that the training program met the performance objectives outlined in the NRC-approved security program plans. In-house audits that have identified areas of marginal performance and recommended corrective actions received immediate corrective actions on the deficient areas.

7. Security Organization

The inspector reviewed the changes in the security organization that had occurred since the last inspection and that are discussed in paragraph 6 of this report. In addition, a new position of Nuclear Security Specialist was established as the licensee's senior security representative on site. The incumbent reports directly to the Director of Nuclear Security. The Nuclear Security Specialist will supervise eight Shift Security Assistants, a Chief Security Coordinator and Technical Assistants who will monitor the security program and security force performance. During this inspection, the inspector determined that the Director of Nuclear Security was conducting interviews to fill the positions of Shift Security Assistants. The Chief Security Coordinator and Technical Assistant positions are being filled by personnel currently assigned to the Nuclear Security Specialist. The inspector also determined that the contractor's security Program Manager had been replaced with another, more qualified security professional. The licensee intends to submit a security plan change by the end of January to document these organizational changes. No discrepancies were identified.

The inspector found that four members of the security force had been terminated for various reasons and 19 had resigned, since July 1986. In reviewing the termination/resignation data, the inspector did not identify any security program deficiencies.

A representative of the contract security force informed the inspector that an employee concern survey had been conducted by an independent contractor. The representative stated that the primary concerns raised by the employees involved pay, benefits, problems with supervisors and human factors. All concerns in the survey had been addressed and the licensee, the contractor and its employees were satisfied with the corrective actions taken. This was evident to the inspector by the noticeable increase in morale and job satisfaction exhibited by the contractor's employees. Additionally, plant management has made a major contribution towards enhancing the image of the security force by ensuring that all plant staff members support the security program.

8. Records and Reports

The inspector reviewed various reports and records including, but not limited to, computer input authorization records, security event reports, lighting reports, a personnel survey, security computer operating manual, security contractor monthly status report, security force daily bulletins and reports on training drills. No discrepancies were identified.

9. Lighting

The inspector determined, by observation during the hours of darkness on January 7, 1987, that the lighting in the isolation zones and protected area met the illumination requirement contained in the security plan. The lighting was sufficient for security force members to monitor and observe persons and activities by direct visual surveillance.

10. Access Control (Personnel)

The inspector observed that the access of personnel (particularly, cleaning crews) to the protected and vital areas was being controlled in accordance with the security plan and procedures. Search equipment at the protected area entry point appeared adequate and appropriate for the detection of firearms and explosives.

11. Training and Qualification

The inspector observed that the security force contractor had completed a recent upgrade of the training program. The following significant changes have been implemented:

- A formal, comprehensive training program curriculum was developed. Lesson plans and examinations had been reviewed for accuracy and effectiveness by the contractor and licensee and computerized to enable changes to be made easily.
- The initial and requalification training programs have been modified to include requirements beyond those established in the NRC-approved Training and Qualification Plan (T&Q).
- The training staff was increased and two members were certified as firearms instructors by the National Rifle Association. The training staff has conducted random, performance testing of more than 50% of the security force. Training effectiveness appears to be above the results achieved by NRC during similar testing. Training files are in excellent order and information concerning qualification and requalification is easily retrievable.
- The security contractor has provided a Job Book that details the roles and responsibilities of all positions within the security force. Security personnel have easy access to the book and can review it at any time.