

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report/License No. 50-289/95-15/DPR-50
Licensee: GPU Nuclear Corporation
100 Interpace Parkway
Parsippany, New Jersey 07054
Facility Name: Three Mile Island Nuclear Station - Unit 1
Inspection At: Middletown, Pennsylvania
Inspection Conducted: September 20-21, 1995

Inspector: Edward B. King 10/11/95
E. B. King, Physical Security Inspector

Approved by: Richard R. Keimig
Richard R. Keimig, Chief
Emergency Preparedness and Safeguards Branch
Division of Reactor Safety

Scope: Reactive security inspection in response to two licensee-identified breaches in the protected area boundary within a five-day period. In each instance, timely-made one-hour licensee event reports were provided to the NRC.

Results: An apparent violation was identified related to multiple examples of the licensee's failure to provide adequate compensatory measures during maintenance activities in the owner controlled area, which enhanced the potential for an unauthorized individual to gain undetected access to the protected area. Additionally, communication weaknesses between Operations, Maintenance, Planning, and Security were identified that may have been significant contributing causes to the apparent violation.

DETAILS

1.0 BACKGROUND

On September 15, 1995, the licensee notified the NRC via the Emergency Notification System (ENS) that a breach in the protected area (PA) boundary had been detected and that, upon discovery, immediate compensatory actions had been implemented.

On September 20, 1995, the licensee made a second report to the NRC via the ENS that, while performing a review of the PA boundary in conjunction with the previous event, an additional breach in the PA boundary was found and that immediate compensatory measures again had been implemented.

Following the report of the second protected area breach within a five-day period, on September 20, 1995, a region-based security inspector was sent to the site to review the events.

2.0 CHRONOLOGY OF EVENTS

September 14, 1995

1342: Valve CW-V-1E, discharge stop valve of circulating water pump E, located in the circulation water pump house (CWPH), was tagged open by a Maintenance Foreman.

September 15, 1995

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1055: The event was reported in compliance with 10 CFR 73.71(b)(1) and 10 CFR 73, Appendix G. The event was evaluated by regional management following discussions with NRC resident inspection personnel, with the conclusion that the probability of unauthorized entry by personnel or introduction of unauthorized material was minimal, based on the physical configuration near the termination of the entry path, the report from the licensee that at least two contractor personnel had been continuously present in the CWPH for the 11-hour period that the pathway existed, a report from the licensee that interviews with contractor personnel who had worked in the CWPH indicated that no unauthorized

personnel in the CWP, and, significantly, the absence of knowledge of the apparent vulnerability.

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September 20, 1995

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0745: The Security Manager discussed the above noted maintenance work with the Operations Director and determined that (1) the work activity had not been discussed with security prior to initiation of the activity and (2) another breach in the PA boundary existed.

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0810: The second event, which had existed since sometime on September 12, was reported to the NRC in accordance with 10 CFR 73.71(b)(1) and 10 CFR 73, Appendix G.

1300: An NRC Region I security inspector arrived at the plant to review the events. The review included a walkdown of the affected systems in company with the NRC resident inspectors, a review of plant procedures and documentation related to the event, and discussions with Security, Planning, Operations, and Maintenance supervision involved in the event.

Shortly after arrival, the licensee informed the inspector that another situation with the potential for a breach in the protected area barrier had been found.

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September 22, 1995

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3.0 INSPECTION ACTIVITIES AND FINDINGS

3.1 SYSTEM WALKDOWNS

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The TMI Modified Amended Physical Security Plan, Revision 31, dated February 10, 1995, Section 4.8.2, states, in part, that barriers are installed at the entrance to, or the exit from, openings that exceed 96 square inches, or in culverts, tunnels or sewers that penetrate the protected area barrier. These openings are secured by grates, doors or coverings of sufficient strength to preserve the barrier integrity. The Plan further states, in part, that if the integrity of the physical barrier is degraded, increased patrols are instituted, or if the Protected Area is breached, an Armed Site Protection Officer is assigned at the degraded barrier until such time as the barrier is restored.

The inspector determined that the licensee's failure to provide adequate compensatory measures during maintenance activities, which resulted in the existence of three, and the potential for a fourth, unmonitored and unprotected pathways with cross sectional areas significantly greater than 96 square inches from the owner controlled area into the protected area is an apparent violation of the NRC-approved Physical Security Plan.

3.2 PROCEDURE AND DOCUMENTATION REVIEW

The inspector determined, based on discussions with licensee supervision, that all corrective maintenance work is planned and controlled by job orders developed by the Planning Department. Direction for the Planners for the development of job orders is provided in TMI procedure 1407-1, TMI General Corrective Maintenance Procedure, Section 4. The purpose of the procedure is to provide guidance to all plant personnel in the performance of corrective maintenance. As the job order is developed, it is the Planner's responsibility to determine if the work to be performed has an impact on security equipment or access into the plant. Section 2.13 of the procedure, page ENC4-7, requires the Planner to question if a job order requires the involvement of the Security Department or special security procedures. Additionally, Section 2.31.4, page ENC4-16, requires the Maintenance Group Supervisor to notify Security prior to starting work on the job order if the nature of the maintenance activity could allow unauthorized entry into vital areas, protected areas, or breach any security regulation.

The inspector reviewed job order #00048902, "B-Cooling Tower Bypass D-Valve;" job order #00108257, "A-Cooling Tower Bypass-A-Valve;" job order #00101165, "Condenser Circ. Water E-Pump;" and job order #0087879, "Circ. Water A-Pump Expansion Joint Replacement;" and determined that the job orders contained no guidance which would have required the Group Supervisors to notify Security prior to initiating work. This appears to be a weakness in the development of the job orders in that the Planners did not appear to be sensitive to security requirements. Additionally, all job orders were reviewed by Plant Operations and signed off by an Operations Supervisor prior to the initiation of work activities, which indicated a potential lack of sensitivity to security requirements by the Operations staff. Security is not represented at the daily planning meeting, therefore, security does not have the opportunity to obtain current information on planned work activities. The only meeting attended by security regarding the plant outage is the weekly Monday morning meeting. The inspector discussed with members of licensee management the need for the licensee to better communicate work activities to Security. The licensee agreed that a weakness existed and that steps would be taken to resolve the concern. Such weaknesses appear to have contributed to the licensee's failure to establish effective security compensatory measures in the areas in which breaches in the protected area boundary occurred.

4.0 EXIT INTERVIEW

On September 21, 1995, at the conclusion of the inspection, the inspector met with the licensee representatives listed below, reviewed the purpose and scope of the inspection, and presented the preliminary findings. The licensee acknowledged the preliminary inspection findings.

Licensee Personnel

- * J. Knubel, Vice President and Director, TMI
- L. Knoll, Operations Director
- * R. Goodrich, Site Security Manager
- C. Incorvati, Quality Verification Manager
- * R. Adamiak, Manager, Logistical Support
- * J. Schork, Technical Analyst Senior, II
- E. Fredrick, Human Performance Coordinator
- R. Troutman, Planning/Estimating Manager
- R. Natale, Mechanical Lead Group Supervisor

U.S. Nuclear Regulatory Commission

- M. Evans, Senior Resident Inspector
 - * S. Hansell, Resident Inspector
- * Denotes those present at the exit interview

The inspector also interviewed other licensee personnel during this inspection.