

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No: 50-440  
License No: NPF-58

Report No. 50-440/99016(DRS)

Licensee: FirstEnergy Nuclear Operating Company

Facility: Perry Nuclear Power Plant

Location: P.O. Box 97, A200  
Perry, OH 44081

Dates: October 25-28, 1999 onsite  
November 3-4, 1999 in NRC Region III Office

Inspector: Gary L. Pirtle, Physical Security Inspector

Approved by: James R. Creed, Safeguards Program Manager  
Division of Reactor Safety

## EXECUTIVE SUMMARY

### Perry Nuclear Power Plant, Unit 1 NRC Inspection Report 50-440/99016(DRS)

This announced inspection included an evaluation of the effectiveness of selected elements of the security program, and included a review of an event in which a Medical review Officer made an error in evaluating a Fitness-For-Duty laboratory test result.

- A Non-cited violation was identified for the Medical Review Officer's failure to accurately interrupt a fitness-for-duty positive test result laboratory report (Section S.2).
- An unresolved item was identified in reference to the adequacy of procedures for the vehicle barrier system. A weakness was noted in reference to premature compensating for the perimeter alarm system on occasions. Security equipment had a very high rate of in-service time (Section S8.2).
- Appropriate security events were logged, and two reviewed security plan revisions were submitted in accordance with 10 CFR 50.54 (p). Copies of three access authorization denial case files were requested for further review in the NRC Region office (Section S8.3).
- The Quality Assurance annual audit of the security program was thorough and well documented. The security department monitored self-identified performance data on a monthly basis (Section S8.7).

## Report Details

### IV. Plant Support

#### S2 Status of Security Facilities and Equipment

##### a. Inspection Scope (81700)

The inspector reviewed alarm station operations, communication capabilities, testing and maintenance procedures and support, and compensatory measures implemented for security equipment.

##### b. Observations and Findings

1. An unresolved item was identified in reference to the applicability of guidance in Nuclear Energy Institute (NEI) Document 96-01 to the Perry Nuclear Plant security program. By NEI letter, dated February 13, 1996, NEI provided a copy of NEI 96-01 (original), "Nuclear Power Plant Guidelines for Operational Planning and Maintaining Integrity of Vehicle Barrier Systems" to nuclear plant licensee's for "**immediate use in drafting procedures in support of the implementation of the required barrier installations by February 29, 1996** (Emphasis contained in NEI letter). The Executive Summary of NEI 96-01 noted that NEI 96-01 was developed to provide the industry with generic guidance to implement regulatory requirements for vehicle barrier systems around the protected areas of nuclear power plants. The NEI document contained guidelines pertaining primarily to observation and inspection requirements for active and passive vehicle barriers, and compensatory measures for degraded barriers.

During review of the site security procedures, the inspector noted that the vehicle barrier system (VBS) procedures did not include guidelines contained in NEI Document 96-01 in reference to the frequency of active barrier inspections, compensatory measures for the VBS, training of personnel conducting barrier inspections, and advising the NRC region of compensatory measures that exceed 30 days. The licensee's existing procedures also did not contain equivalent measures for the areas described above. The security plan noted that the compensatory measures for the VBS would be in accordance with Regulatory Guide 5.68, "Protection Against Malevolent Use of Vehicles at Nuclear Power Plants". However, Regulatory Guide 5.68 has no guidance pertaining to training for personnel conducting VBS inspections, frequency of inspections of active barriers, or time limitations for certain compensatory measures. The plan does not specifically reference NEI 96-01.

The unresolved item is if NEI Document 96-01 was prepared as an industry initiative (or other mechanism) with the understanding with NRC that nuclear plant licensees would comply with the NEI guidance in NEI 96-01, or commit to equivalent measures for inspection/observations and compensatory measures for the VBS. Resolution of this issue will be addressed by separate correspondence (URI 50-440/99016-01).

2. The security plan currently allows an alarm zone to be declared inoperative only if a specified number of false alarms are received within a specified period of time. During

review of security event logs and review of alarm history documents, the inspector noted that at times security shift supervisors declared the perimeter alarm system partially ineffective and implemented compensatory measures even though the alarm zone false alarm criteria for such actions had not been achieved. Inspector interviews with security supervisors disclosed that the actions were taken in anticipation that excessive false alarms may be forthcoming. In the vast majority of the alarm histories reviewed, excessive alarms did in fact start being received not long after the alarm system compensatory measures were implemented. During such periods, the assessment and response to alarms was at times unnecessarily reduced. During the inspection, the licensee security staff provided guidance to security shift supervisors on what criteria had to be met before compensating for the alarm system, and expected actions to be taken for alarms received. Appropriate procedures were scheduled to be revised and the issue was entered in the licensee's corrective action program (tracking item No. CR 99-2578).

3. Security equipment had a very high rate of in-service time. Since January 1999, trending data maintained by the security department indicated that the in-service time for security equipment was 98% or higher, and monthly in-service time had never been below 95%. Review of maintenance support documents indicated very good support for the security equipment.

No deficiencies were noted during review of equipment testing procedures or testing documentation for security equipment. No deficiencies were noted during inspection of the primary alarm station and communication capabilities.

c. Conclusions

An unresolved item was identified in reference to procedures for the vehicle barrier system. A weakness was noted in reference to premature compensating for the perimeter alarm system on occasions. Security equipment had a very high rate of in-service time.

**S3 Security Program Plans**

a. Inspection Scope (81700)

The inspector reviewed implementation of Revision 26, dated March 15, 1999, and Revision 27, dated July 21, 1999, to the Perry Nuclear Power Plant security plan. The purpose of the review was to determine if the changes reduced the effectiveness of the security program. Security event logs were also reviewed.

b. Observations and Findings

During review of the security event reports, there were three occasions since January 1999, when unescorted access to the protected area was denied after it was determined that three personnel allegedly failed to disclose required information on their access authorization forms. The inspector requested copies of the individual's case files for further review. Inspection results thus far concluded that the licensee security staff took

timely and appropriate actions when the deficiencies became known. The case file review results, and any actions that may be initiated in reference to this issue, will be addressed in separate correspondence.

No deficiencies or issues were identified during onsite review of implementation of Revision 26 and 27 to the Perry Nuclear Plant Physical Security Plan.

c. Conclusions

Appropriate security events were logged, and the security plan revisions were submitted in accordance with 10 CFR 50.54(p).

**S7 Quality Assurance in Security and Safeguards Activities**

a. Inspection Scope (81700)

The inspector reviewed the annual audit of the security program performed by the Quality Assurance department and the monthly security system reports completed by the security department.

b. Observations and Findings

The inspector reviewed the annual Quality Assurance Department audit of the security program (Audit Report No. PA-99-09, dated August 30, 1999). The audit of the security program covered the period between June 30 and August 10, 1999. The scope of the audit was excellent and included major areas such as security operations; protected/vital areas; security equipment performance; and program documentation. Two condition reports (CR) (part of the corrective action program) were completed as a result of the audit. One CR pertained to the weapons inspection program, the other CR pertained to the repetitive task program (tasks are identified as delinquent and not performed when the need for them no longer existed).

The security department monitored and evaluated on a monthly basis, several goals and objectives established by the department to include: perimeter alarm performance indicators; open and closed work orders; compensatory measures; perimeter alarm zone failures; safeguard event logs and other areas. Trending data was also developed and analyzed by the security staff.

c. Conclusions

The Quality Assurance annual audit of the security program was thorough and well documented. The security department monitored self-identified performance data on a monthly basis.

**S8 Miscellaneous Security and Safeguards Issues**

- S8.1 (Closed) Unresolved Item (URI) 50-440-96010-01: This issue was an unresolved item relating to applicability of the Continuous Behavioral Observation Program (CBOP) to

members of the offsite review committee. The NRC concluded that the CBOP requirements apply to members of the offsite review committee if they have been absent from a CBO Program for a period of 30 or more continuous days. The security staff have changed and implemented the applicable procedure in reference to this issue. This item is closed.

- S8.2 (Violation) Fitness For Duty (IP 81502): A violation was identified pertaining to the medical review officer (MRO) inadequately evaluating a positive test result from the Fitness-For-Duty (FFD) laboratory. On August 16, 1999, the MRO misread the lab result as positive for codeine, rather than cocaine, as indicated on the laboratory report. The MRO interviewed the individual for a possible medical explanation for codeine, rather than cocaine. Because of this error, the individual's test results were not declared positive by the MRO, and sanctions required by 10 CFR Part 26 for positive test results were not implemented. This was a violation of the provisions of Section 2.9(b) of appendix A to 10 CFR Part 26, which requires the MRO to review and interpret positive test results obtained through the FFD testing program, (and examine explanations for any positive test result) and Section 2.9(c) of Appendix A to 10 CFR Part 26, which requires licensee management to be advised of positive test results .

An individual was tested on August 10, 1999, the FFD laboratory completed their analysis on August 12, 1999, and the MRO made the initial determination that the FFD test was negative for the reason stated above on August 16, 1999. The error in interpreting the laboratory results was identified by a medical support member on September 9, 1999, while reviewing and filing FFD-related records. The site access authorization personnel and the MRO were advised of the possible error also on September 9, 1999. The MRO completed the second evaluation and determined the FFD test result to be positive on September 10, 1999.

The consequences of this specific error to the Perry Nuclear Plant were not significant because the individual was not granted unescorted access to the protected area. The error however did allow the individual to gain access to another nuclear plant between August 20-26, 1999, without the individual disclosing a past positive FFD result, or being placed in a followup FFD testing program. The individual was not advised of the positive test result until September 10, 1999, several days after he left the other nuclear plant. Additionally, because of the MRO's error, the other utility that granted unescorted protected area access had no reason to know that FFD followup testing was required if unescorted access was granted to the individual.

The violation was identified by a member of the licensee's staff, timely actions to resolve the error were initiated, the access denial was been entered in the industry Personnel Access Data System (PADS), and a thorough and well documented investigation (Incident Report No. 99-043) was completed. Immediate corrective actions were completed in a timely manner and corrective actions to prevent recurrence are scheduled to be completed by November 11, 1999. The incident and corrective actions have been entered in the licensee's corrective action program ( Nos. 99-2212-CATP-001 and 99-2212-CATP-002). This violation is being treated as a Non-Cited violation, consistent with Section VII.B.1 of the Enforcement Policy (NCV 50-440-99016-02).

## **V. Management Meeting**

### **X1 Exit Meeting Summary**

On October 28, 1999, the inspector presented the inspection results to licensee management. The licensee acknowledged the findings presented. The inspector asked the licensee whether any materials examined during this inspection should be considered proprietary or Safeguards Information. No proprietary information was identified. Specific details of existing uncorrected weaknesses in the security system would be considered as safeguards information and exempt from public disclosure as required by 10 CFR 73.21, and are not included in this report.

On November 3 and 4, 1999, the inspector contacted licensee security staff members by telephone to further discuss the two unresolved issues and the violation involving the Medical Review Officer. Additional information pertaining to the issues was obtained, however, overall conclusions were not changed.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee Representatives

J. Wood, Site Vice President  
H. Bergendahl, Services Department Director  
N. Bonner, Director, Maintenance  
T. Coan, Security Supervisor  
D. Gudes, Compliance Unit Supervisor  
W. Kanda, Plant Manager  
L. Lindrose Jr., General Supervisor, Security Operations  
C. McConnell, Quality Assurance Nuclear Advisor  
T. Mahon, Manager, Security  
R. Schrauder, Director of Engineering  
J. Slike, Supervisor, Access Authorization  
S. Stanford, Senior Compliance Engineer

### NRC Representatives

Christine Lipa, Senior Resident Inspector - Perry Nuclear Power Plant

## INSPECTION PROCEDURES USED

IP 81700      Physical Security Program For Power Reactors  
IP 81502      Fitness For Duty  
IP 92904      Followup - Plant Support

## ITEMS OPENED AND CLOSED

### Opened

50-440-99016-01	URI	Inadequate Inspections and Compensatory Measures For The Vehicle Barrier System
50-440-99016-02	VIO	Medical Review Officer Made an Error in Evaluating a FFD Laboratory Test Result Report

### Closed

50-440/96010-01	URI	CBOP For Offsite Review Committee Members Between Visits
50-440/99016-01	VIO	Medical Review Officer Made an Error in Evaluating a FFD Laboratory Test Result Report

## LIST OF ACRONYMS USED

CBOP	Continual Behavior Observation Program
CFR	Code of Federal Regulations
DRS	Division of Reactor Safety
FFD	Fitness For Duty
IP	Inspection Procedure
IR	Inspection Report
NCV	Non-Cited Violation
URI	Unresolved Item
VBS	Vehicle Barrier System

## PARTIAL LIST OF DOCUMENTS REVIEWED

Loggable Security Events Records from January 1999 through September 30, 1999  
Audit PA 99-09, "Conduct of Security", dated August 30, 1999  
Investigation Report No. 99043 (Medical Review Officer Error in reviewing Fitness-For-Duty Laboratory Test Results)  
Condition Report No. 992212 (Medical Review Officer Error), dated September 13, 1999  
Condition Report No. 99-2578 (Perimeter Alarm System Compensatory Measures), dated October 26, 1999  
Condition Report No. 99-2591 (Vehicle Barrier System Concerns), dated October 28, 1999  
Operational Surveillance Report No. 99-221, "Security Tactical Response Drill", dated October 18, 1999  
Operational Surveillance Report No. 99-011, "Continuous Behavioral Observation Program", dated September 20, 1999  
Portions of Security Post Instruction 0030, "Security Compensatory Measures", Revision 7, dated December April 6, 1999  
Portions of Security Surveillance Instruction 0003, "Security System Equipment Operability Testing", Revision 11, dated March 2, 1999  
Security Door Testing Checklist for Period Between August 3, 1999 and September 28, 1999  
Portions of "Detection and Access Control Computer System Operating Instruction", Revision 5, dated February 4, 1999  
Security Memorandum "Perimeter Intrusion Detection System Compensatory Measures", dated October 26, 1999