ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.:	50-482
License No.:	NPF-42
Report No.:	50-482/99-01
Licensee:	Wolf Creek Nuclear Operating Corporation
Facility:	Wolf Creek Generating Station
Location:	1550 Oxen Lane, NE Burlington, Kansas
Dates:	January 11-14, 1999
Inspector(s):	D. W. Schaefer, Security Specialist, Plant Support Branch
Approved By:	Arthur T. Howell, III, Director Division of Reactor Safety
Attachment:	Supplemental Information

EXECUTIVE SUMMARY

Wolf Creek Generating Station
NRC Inspection Report No. 50-482/99-01

This was an announced inspection of the licensee's physical security program. The areas inspected included: testing and maintenance, protected area barriers and detection aids, vital area barriers and detection aids, compensatory measures, security system power supply, security program plans and procedures, security event logs, security training and qualification plans, and miscellaneous security and safeguards issues.

Plant Support

- Performance in the physical security area was very good. A proper security system testing and maintenance program was conducted and documented. Security equipment was repaired in a timely manner. The protected and vital area barriers and detection systems were well designed and maintained. All attempts by the licensee to intrude through the barriers were detected. Compensatory security measures were effectively deployed and were consistent with requirements of the security plan. The testing of the security backup power supply system was effective in demonstrating the capability of the system to perform its intended function. The security diesel generator was reliable and well maintained. Implementing procedures met the performance requirements in the physical security plan. The event logs and supporting incident reports were accurate and neat, and the security staff was correctly reporting security events. Security personnel were well trained on the program requirements (Sections S2.1, S2.2, S2.3, S2.4, S2.5, S3.1, S3.2, and S5.1).

- The licensee committed to revise its security plan to include an increased minimum staffing of one armed security force response individual per shift, as utilized during the Operational Safeguards Response Evaluation (Section S3.1).

Report Details

IV. Plant Support

S2 Status of Security Facilities and Equipment

S2.1 Testing and Maintenance

a. Inspection Scope (81700)

The inspector reviewed the testing and maintenance program to determine compliance with the requirements of the security plan.

b. Observations and Findings

The inspector determined through a review of records and interviews with security officers and supervisors that repairs to security equipment were completed in a timely manner. The timely response to repair detection aids, closed-circuit television cameras, vital area door locks, and access control equipment resulted in a low number of compensatory postings.

The inspector determined through interviews and a review of records that proper tests were conducted on the following: closed-circuit television cameras, communications equipment, metal and explosive detectors, X-ray machines, perimeter microwave and E-field zones, protected and vital area barriers and portals, card readers, security diesel generator, and protected area lighting.

c. Conclusions

A proper security system testing and maintenance program was conducted and documented. Timely repair of security equipment resulted in a low number of compensatory postings.

S2.2 Protected Area Barriers and Detection Aids

a. Inspection Scope (71750 and 81700)

The inspector reviewed the protected area barrier and detection aids to determine compliance with the requirements of the physical security plan. The areas inspected included the features of the protected area barrier and the design and capabilities of the detection aids system.

b. Observations and Findings

The inspector conducted a walkdown inspection of a portion of the main protected area barrier and determined that the barrier was installed and maintained as described in the physical security plan. Additionally, the inspector determined that the protected area

barrier provided penetration resistance to both forced and surreptitious entry and was adequate to ensure delay of a potential adversary.

The inspector observed the licensee test the protected area perimeter microwave system at the main protected area. The detection system was well designed and maintained, and all attempts to intrude into the protected area were detected. The positioning of the microwave heads presented a difficult problem for any intruder who wished to enter the plant undetected. The licensee's tests of the systems were performance-based to ensure that system failures were discovered and corrected. Maintenance of the perimeter detection systems was performed in a timely manner. Additionally, the inspector verified that an alarm for each component annunciated in the continuously manned security alarm stations.

c. Conclusions

The protected area barriers and detection systems were well designed and maintained. All attempts by the licensee to intrude into the protected area were detected.

S2.3 Vital Area Barriers and Detection Aids

a. Inspection Scope (81700)

The inspector observed the licensee's vital area barriers and detection aids to determine compliance with the requirements of the physical security plan.

b. Observations and Findings

The inspector determined through observation and testing that the vital areas were appropriately locked and alarmed and that the vital area barriers were adequate to ensure delay of a potential adversary. The inspector's random observations determined that unescorted access into vital areas was limited to authorized personnel. The alarms annunciated in continuously manned alarm stations. Emergency exits from vital areas were locked and alarmed.

The inspector observed the licensee test the vital area door locking mechanisms and detection aids. All tests were properly conducted and all attempts to intrude into the vital areas were detected. The licensee's tests of the vital area detection system were performance based to ensure that system failures were discovered and corrected.

c. Conclusions

Effective vital area barriers and detection systems were in place that would provide delay and detection to individuals attempting unauthorized entry.

S2.4 Compensatory Measures

a. Inspection Scope (81700)

The inspector reviewed the licensee's compensatory measures program to determine compliance with the requirements of the security plan. The areas inspected included deployment of compensatory measures and the effectiveness of those measures.

b. Observations and Findings

The inspector confirmed that the licensee deployed compensatory measures in a manner consistent with the requirements in the security plan. The inspector determined through interviews that the security personnel available for assignment to compensatory security posts were properly trained for those duties.

c. Conclusions

The licensee effectively deployed compensatory measures in a manner consistent with the requirements of the security plan.

S2.5 Security System Power Supply

a. Inspection Scope (71750)

The design and operation of the security system backup power supply was inspected to determine compliance with the requirements of the security plan. The inspector also reviewed the licensee's equipment test records.

b. Observations and Findings

The inspector determined that, as designed, the security diesel generator started and immediately assumed the power load for the required components of the security system. The test required that the security diesel operate under load for approximately 50 minutes. The licensee conducted its weekly test of the security diesel generator as part of its preventive maintenance and testing program. The inspector also determined through interviews of security staff that the security equipment that operated on the backup power supply system performed as required. The security diesel generator was well maintained. The inspector also verified that, upon transfer to the backup power system, an automatic indication was received in the alarm stations.

c. Conclusions

The testing of the security backup power supply system was effective in demonstrating the capability of the system to perform its intended function. The security diesel generator was reliable and well maintained.

S3 Security and Safeguards Procedures and Documentation

S3.1 Security Program Plans and Procedures

a. Inspection Scope (81700)

The inspector reviewed the security plan and the implementing procedures. Additionally, the inspector reviewed the Operational Safeguards Response Evaluation (OSRE) report dated April 29, 1998.

b. Observations and Findings

The inspector reviewed 11 implementing procedures for adequacy, verified that the licensee maintained an effective management system for the development and administration of procedures, and that changes to the procedures did not reduce the effectiveness of the security program.

To meet the 10 CFR Part 73 design basis threat, Section 1.4.8 of the licensee's security plan states that the Wolf Creek security force is comprised of a minimum of X-numbered (specific number is safeguards information) armed security force response individuals per shift.

From February 9-12, 1998, the NRC's Office of Nuclear Reactor Regulation performed an Operational Safeguards Response Evaluation (OSRE) at Wolf Creek. NRC Inspection Report 50-482/98201 dated April 29, 1998, reported the results of this evaluation. The primary purpose of the OSRE was to assess the licensee's ability to respond to the "external threat" portion of the design basis threat. During conduct of the OSRE, the licensee elected to utilize one additional (X+1) armed response individual per shift.

During the inspection, the inspector discussed with the licensee, the difference between the number of armed response officers required by the security plan (X-number of responders) and the number of armed response officers utilized during the OSRE (X+1 number of responders). Upon discussion, the licensee agreed to resolve this difference by revising its security plan to include an increased minimum staffing of one-armed response individual per shift.

During the exit meeting on January 14, 1999, the Vice President, Operations/Chief Operating Officer, committed to revise the Wolf Creek security plan to include an increased minimum staffing of one armed security force response individual per shift.

c. Conclusions

Implementing procedures met the performance requirements in the physical security plan. The licensee committed to revise its security plan to include an increased minimum staffing of one armed security force response individual per shift, as utilized during the Operational Safeguards Response Evaluation.

S3.2 Security Event Logs

a. Inspection Scope (81700)

The inspector reviewed safeguards event logs and security incident reports to determine compliance with the requirements of 10 CFR 73.21(b) and (c), 10 CFR 26.73, and the physical security plan. The inspector also reviewed miscellaneous reports.

b. Observations and Findings

The inspector reviewed the security event logs from September 1, 1998, to January 7, 1999. The records were available for review and maintained for the time required by regulations. The inspector determined that the licensee conformed to the regulatory requirements regarding the reporting of security events. The logs and supporting security incident reports were accurate, neat, and contained sufficient detail for the reviewer to determine root cause, report ability, and corrective action taken.

The licensee's records also included trending and analysis of the major categories of events.

c. Conclusions

The event logs and supporting incident reports were accurate and neat, and the security staff was correctly reporting security events.

S5 Security and Safeguards Training and Qualification

S5.1 Security Training and Qualification Plan

a. Inspection Scope (81700)

The inspector reviewed the licensee's security training and qualification program to determine adequacy and compliance with the requirements of the security training and qualification plan and the contingency plan.

b. Observations and Findings

The security organization conducted all required training in accordance with its approved security training plan. The inspector confirmed, by a review of the composite security training records, that the required training was conducted every 12 months.

The inspector observed security officers during the performance of their duties. All security officers displayed very good conduct and knowledge of the procedural requirements.

The inspector confirmed, by a review of the composite security records, that the required medical examinations were completed every 12 months. Additionally, the inspector reviewed copies of medical examination records for four security officers. The

medical records were complete and conducted in a timely manner. The results of the medical examinations were properly documented.

c. Conclusions

Security personnel were well trained on the program requirements. Medical examinations for security officers were well documented.

S8 Miscellaneous Security and Safeguards Issues (MC 92700)

S8.1 (Closed) Licensee Event Report 482/98-005: Unlocked Safeguards Cabinet

In accordance with 10 CFR 73.71, Appendix G.I(c), the licensee telephonically reported to the NRC on October 11, 1998, that when a security officer, assigned to check safeguards containers, pulled on the combination padlocks, one of the padlocks opened.

The licensee's investigation determined that as a security officer entered a room on the first floor of the Clyde Cessna Building, inside the protected area, the padlocks on all four safeguards containers were locked. However, when the officer vigorously pulled on the lock for cabinet No. 75, the lock opened. The contents of cabinet No. 75 included a copy of the security plan and the safeguards contingency plan. Upon inventory, all safeguards documents were present.

During this inspection, the inspector reviewed the licensee's completed investigation of this event. The licensee's investigation concluded that on October 9, 1998, during a training session, a new safeguards custodian (trainee) had successfully opened (unlocked) and closed (relocked) the (Sargent and Greenleaf, Inc.) combination padlock for several containers. Near the end of the training session, the trainee had dialed the combination for the lock on container No. 75; however, when (gently) pulling on the lock it would not open. Therefore, the trainer and the trainee assumed that the padlock combination had not been properly entered. At the conclusion of the training, neither the trainee nor the trainer had rotated the dial on the front of the padlock. Later, during a check of all cabinets, the security officer vigorously pulled on the padlock for container No. 75 and the lock opened. The licensee determined that the root cause of this event was lack of guidance for proper locking of padlocks, i.e., rotating the dial several revolutions. Corrective actions included an instructional memo and incorporation of this memo into annual training. As a precaution, all padlocks were replaced.

Further investigation by the licensee concluded that between October 9 and 11, 1998, the padlock had not been unlocked by an unauthorized person and that a compromise of safeguards information had not occurred. Through testing the licensee determined that the padlock operated properly. If anyone had gained unauthorized access to the safeguards container and had repositioned the padlock to the locked position, the padlock would have relocked and would not have opened when vigorously pulled upon by the security officer.

V. Management Meetings

X1. Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on January 14, 1999. The licensee acknowledged the findings presented. The licensee committed to revise its security plan to include an increased minimum staffing of one armed security force response individual per shift. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

C. Warren, Vice President Operations/Chief Operating Officer
R. Andrews, Engineering Specialist, Licensing
M. Angus, Manager, Licensing and Corrective Actions
G. Burchart, Manager, Human Resources
V. Canales, Supervisor, Quality Evaluations
K. Davison, Manager, Integrated Plant Scheduling
M. DeLaCruz, Superintendent, Mechanical Maintenance
D. Erbe, Superintendent, Security
R. Flannigan, Manager, Nuclear Engineering
S. Good, Security Administrative Coordinator
T. Harris, Superintendent, Licensing
D. Jacobs, Manager, Support Engineering
J. Johnson, Manager, Resource Protection
C. Jones, Superintendent, Maintenance Support
B. McKinney, Plant Manager
M. McKinney, Security Investigator
J. Pearson, Specialist III, Human Resources (Access Authorization)
J. Pippin, Manager, Training
C. Rich, Sr., Superintendent, Instrument and Calibration
E. Schmotzer, Manager, Purchasing and Material Services
C. Younie, Manager, Operations
R. Walters, Security Shift Lieutenant, Operations

NRC

B. Smalldridge, Resident Inspector

INSPECTION PROCEDURES USED

IP 71750	Plant Support Activities
IP 81700	Physical Security Program for Power Reactors

LIST OF ITEMS OPENED CLOSED AND DISCUSSED

Items Opened

None

Items Closed

50-482/98-005 LER Unlocked Safeguards Cabinet

LIST OF DOCUMENTATION REVIEWED

Safeguards Event Logs from September 1, 1998, through January 7, 1999

Safeguards Event Log Trending Report, 1998

Composite computer listing of security officer medical examinations

Training records for four security officers

Testing Records

Shift Device Test Log

Weekly Device Test Log Sunday/Nights

Weekly Device Test Log Tuesday/Days

Weekly Device Test Log Tuesday/Nights

Weekly Device Test Log Wednesday/Days

Weekly Device Test Log Wednesday/Nights

Weekly Device Test Log Thursday/Nights

Weekly Device Test Log Saturday/Nights

Vital Area Device Test - 7 Days

Detection Probability Testing Results

Weekly Device Test Log (Tuesday/Days) for Security Diesel Generator

Wolf Creek Procedures

SEC 01-108, "Security System Performance Testing," Revision 44

SEC 01-401, "Security Personnel Performance Objectives," Revision 15

SEC 01-402, "Security Personnel Training and Qualification," Revision 14

SEC 01-403, "Security Personnel Medical Qualification," Revision 16

SEC 01-404, "Training and Qualifications Waivers and Exemptions," Revision 9

SEC 01-405, "Security Training Documentation," Revision 21

SEC 01-408, "Testing/Retesting Procedure," Revision 8

SEC 50-130, "Compensatory Requirements," Revision 40

MPE CQ-001, "Security Diesel Generator Battery Monthly PA," Revision 1

MPM H401-01, "Security Building Standby Diesel Generator Semi-Annual Preventive Maintenance," Revision 4

MPM H401-02, "Security Building Standby Diesel Generator Annual Preventive Maintenance," Revision 1