

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket No.: 50-482
License No.: NPF-42
Report No.: 50-482/97-07
Licensee: Wolf Creek Nuclear Operating Corporation
Facility: Wolf Creek Generating Station
Location: 1550 Oxen Lane, NE
Burlington, Kansas
Dates: February 3-7, 1997
Inspector: D. W. Schaefer, Security Specialist
Plant Support Branch
Approved By: Blaine Murray, Chief, Plant Support Branch
Division of Reactor Safety
Attachment: Supplemental Information

EXECUTIVE SUMMARY

Wolf Creek Generating Station NRC Inspection Report 50-482/97-07

This routine announced inspection focused on the licensee's physical security program. The areas inspected included review of commitments in the Updated Final Safety Analysis Report, records and reports, testing and maintenance, assessment aids, detection aids - protected area, vital area barriers and detection aids, alarm stations, communications, compensatory measures, access control of personnel and vehicles, personnel training and qualification, management support, and security program audit.

Engineering

- The Updated Final Safety Analysis Report was consistent with the observed plant physical security plan and procedures (Section E2).

Plant Support

- A very good records and reports program was in place. The security staff was reporting security events correctly. A noncited violation was identified involving the failure of a security officer to secure a patrol vehicle parked inside the protected area (Section S1.1).
- An excellent testing and maintenance program was conducted and was documented. Timely repair of security equipment resulted in a low number of compensatory postings (Section S2.1).
- Assessment aids provided excellent assessment of the perimeter detection zones. Instrumentation and controls technicians provided excellent service support and repaired problems with closed circuit television cameras in a timely manner (Section S2.2).
- A very good perimeter detection system was maintained. The perimeter detection system was properly performance tested. A high alarm rate was noted for three perimeter alarm zones (Section S2.3).
- The vital area barriers and detection system were in place and would be effective in providing delay and detection during a penetration attempt. Additionally, the vital area barriers and detection system effectively limited access to only authorized personnel (Section S2.4).
- The alarm stations were redundant and well protected. The operators were alert and well trained (Section S2.5).

- A good security radio communication system was maintained. An adequate number of portable radios were available for members of the security organization (Section S2.6).
- The compensatory measures program was effectively implemented. The security procedure for compensatory measures met the requirements in the security plan. Security personnel were well trained on compensatory requirements (Section S4.1).
- A very good program for searching personnel and vehicles was maintained. A weakness identified involving one of the x-ray machines was corrected. A concern was identified involving the entry turnstiles (Section S4.2).
- An effective security training program had been implemented. Medical examinations for security officers were thorough and well documented (Section S5.1).
- Senior management support for the security organization was strong. The security program was implemented by a well trained and highly qualified staff. The low morale of the security officers was attributed, in part, to the licensee's recent announcement to transition the majority of the security organization from a proprietary to a contract security force (Section S6.1).
- The 1996 audits of the security program were very good. A weakness was identified regarding three security program areas that were not included in the audits (Section S7.1).

Report Details

III. Engineering

E2 Review of Commitments in the Updated Final Safety Analysis

A recent discovery of a licensee operating its facility in a manner contrary to the Updated Final Safety Analysis Report description highlighted the need for a special focused review that compares plant practice procedures and/or parameters to the Updated Final Safety Analysis Report description. While performing the inspection discussed in this report, the inspector reviewed the applicable portions of the Updated Final Safety Analysis Report that related to the areas inspected. The inspector verified that the Updated Final Safety Analysis Report wording was consistent with the observed plant practice procedures and/or parameters.

IV. Plant Support

S1 Conduct of Security and Safeguards Activities

SI.1 Records and Reports (81700-02.01)

a. Inspection Scope

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.

b. Observations and Findings

The inspector reviewed the security event logs from April 1 through December 31, 1996. 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 incident reports were organized in numerical sequence and easy to audit. The licensee's records included trending and analysis of problems with perimeter intrusion detection equipment, closed circuit televisions, and inappropriate actions (human errors). Trending was very good.

- **Unsecured Security Patrol Vehicle**

Security Incident Report 11-18-1971 identified that on November 17, 1996, a security officer had left the passenger door of a security patrol vehicle unlocked. The unattended patrol vehicle had been parked inside the protected area. Contents of the patrol vehicle included an AR-15 rifle with 130 rounds of ammunition and a shotgun with 25 rounds of ammunition. The passenger door of the patrol vehicle remained unlocked for approximately 35 minutes. Another security officer discovered the unlocked

vehicle, inventoried its contents and accounted for all weapons, ammunition, and equipment.

License Condition 2.E of the Wolf Creek Generating Station Facility Operating License, as amended, dated June 4, 1985, requires that the licensee fully implement and maintain in effect all provisions of the Commission approved physical security plan.

Paragraph 1.2.2 of the physical security plan requires that all security duties be performed in strict accord with approved security procedures.

Paragraph 6.2.3.10 of Security Procedure SEC 01-103, "Patrol Duties," Revision 17, requires patrol officers utilizing vehicles containing weapons to ensure that the vehicle's windows are rolled up and the doors secured prior to leaving the vehicle unattended.

The failure of the security officer to secure a patrol vehicle is a violation of Security Procedure SEC 01-103. During the exit meeting on February 7, 1997, the inspector stated that this licensee identified event was significant in that it provided an opportunity for a security officer to lose control of weapons and ammunition inside the protected area. This licensee identified and corrected violation is being treated as a noncited violation, consistent with Section VII.B.1 of the NRC Enforcement Policy (50-482/9707-01)

c. Conclusions

A very good records and reports program was in place. The security staff was correctly reporting security events. A noncited violation was identified involving the failure of a security officer to secure a patrol vehicle parked inside the protected area.

S2 Status of Security Facilities and Equipment

S2.1 Testing and Maintenance (81700-02.07)

a. Inspection Scope

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 interviews with security officers and supervisors and a review of records that repairs to security equipment were completed in a timely manner. The timely response to repair detection aids, access control equipment, and vital area door locks was instrumental in the extremely low number of compensatory posting hours for security officers.

The inspector determined through a review of records that licensee periodic tests were conducted on the following: security computer, closed circuit television cameras and video capture alarm status check, on and off site communications, metal and explosive detectors, X-ray machines, perimeter microwave zones, vehicle barrier system, protected and vital area barriers and portals, protected area lighting, warehouse fence, and security diesel generator.

c. Conclusions

An excellent testing and maintenance program was being conducted and was properly documented. Timely repair of security equipment resulted in a low number of compensatory posting hours for security officers.

S2.2 Assessment Aids (81700-02.06)

a. Inspection Scope

The inspector reviewed the assessment aids to determine compliance with the physical security plan. The areas inspected included the closed circuit television monitors located in the alarm stations.

b. Observations and Findings

The inspector observed the assessment aids during the hours of daylight and darkness from February 4-5, 1997, and determined that the licensee had an excellent assessment aids system. The fixed and pan-tilt-zoom closed circuit television cameras were placed to ensure effective coverage. Camera resolution was excellent. Additionally, the inspector determined through interviews that instrumentation and controls technicians provided excellent service support. Operational problems with assessment equipment were corrected in a timely manner.

c. Conclusions

Assessment aids provided excellent assessment of the perimeter detection zones. Instrumentation and controls technicians provided excellent service support and routinely repaired problems with closed circuit television cameras in a timely manner.

S2.3 Detection Aids - Protected Area (81700-02.04)

a. Inspection Scope

The licensee's protected area detection aids were inspected to determine compliance with the requirements of the physical security plan. The areas inspected included the detection systems' capabilities, zoning of the alarm systems, detection system security, and maintenance of the detection aids system.

b. Observations and Findings

The inspector discussed with members of the security force the procedures for conducting the 7-day test of the perimeter microwave system. The detection systems were well designed and maintained. The microwave heads presented a difficult problem for any intruder attempting to enter the plant undetected. The licensee's tests of the systems were performance oriented to ensure that system failures were identified and corrected.

The inspector noted that recent efforts to reduce the alarm rate for the perimeter intrusion detection system had some positive effect. However, three alarm zones continued to have a significantly higher alarm rate.

c. Conclusions

A very good perimeter detection system was maintained. The perimeter detection system was performance tested weekly by security officers. A followup item was identified pertaining to the continued high alarm rate for three perimeter alarm zones.

S2.4 Vital Area Barriers and Detection Aids (81700-02.05)

a. Inspection Scope

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 that the vital areas were appropriately locked and alarmed and that the vital area barriers were adequate to ensure delay of a potential adversary, and to ensure that unescorted access was limited to authorized personnel. The alarm system consisted of balanced magnetic switches at the entry points to the vital areas. The alarms annunciated in continuously manned alarm stations, the vital area door locking mechanisms and alarms were tested every 7 days for operability. Emergency exits from vital areas were locked and alarmed.

c. Conclusions

The vital area barriers and detection system were in place and would be effective in providing delay and detection during a penetration attempt. Additionally, the vital area barriers and detection system effectively limited access to only authorized personnel.

S2.5 Alarm Stations (81700-02.06)

a. Inspection Scope

The alarm stations were inspected to determine compliance with the requirements of the security plan. The areas inspected included the requirements and capabilities, redundancy and diversity of stations, protection of the alarm stations, and systems security.

b. Observations and Findings

The inspector confirmed the redundancy and diversity of the alarm stations. Action by one alarm station operator could not reduce the effectiveness of the security systems without the knowledge of the other alarm station operators. The central alarm station and secondary alarm station were bullet resistant. The inspector asked questions of the station operators and determined that they were very effectively trained and knowledgeable of their duties.

c. Conclusions

The alarm stations were redundant and well protected. The operators were alert and well trained.

S2.6 Communications (81700-02.06)

a. Inspection Scope

The communication capabilities were inspected to determine compliance with the requirements of the physical security plan. The areas inspected included the operability of radio and telephone systems and the capability to effectively communicate with the local law enforcement agencies through both of the systems.

b. Observations and Findings

The inspector confirmed that the licensee had a very good radio and telephone systems capable of meeting all communication requirements of the security organization. The licensee maintained an adequate number of portable radios for use by members of the security organization. However, at times, the "fully charged" radio batteries provided only limited service before they were exchanged for another battery.

The licensee had approved the installation of a new 900 Mhz radio system at the plant. When installed, the security organization will operate a separate trunk system. Approximately 60-70 hand held multi-channel radios will be provided to the security organization.

c. Conclusions

A good security radio communication system was maintained. An adequate number of portable radios was available for members of the security organization.

S4 Security and Safeguards Staff Knowledge and Performance

S4.1 Compensatory Measures (81700-02.07)

a. Inspection Scope

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

b. Observations and Findings

The inspector confirmed through a review of Security Procedure SEC 50-130, "Compensatory Requirements," that the licensee deployed compensatory measures in a manner consistent with the requirements in the security plan. The inspector determined through interviews of security personnel that the security personnel available for assignment to compensatory security posts were properly trained for those duties.

c. Conclusions

The compensatory measures program was effectively implemented. The security procedure for compensatory measures met the requirements in the security plan. Security personnel were well trained on the program requirements.

S4.2 Access Control of Personnel and Vehicles (81700-02.05)

a. Inspection Scope

The access control program for personnel and vehicles was inspected to determine compliance with the requirements of the security plan.

b. Observations and Findings

The inspector determined through observations at the security building entrance and at the vehicle sallyport that the licensee properly controlled personnel access to the protected area. The protected area access control equipment was inspected and found to be functional and well maintained except as noted below. The inspector observed the x-ray machine search of hand-carried packages at the security building. The operators were efficient and well trained. However, the inspector identified the following concerns in the access control program:

(1) Entrance Turnstiles

The inspector observed the licensee test the turnstile at the entrance to the protected area. During these tests, the licensee determined that multiple successive insertions of a security badge into the entrance card readers unlocked the turnstile allowing entry each time into the protected area.

The inspector stated that, although not governed by regulatory requirements, an improved method of controlling personnel access to the protected area would allow only one insertion of a security badge to unlock an entry turnstile. A second successive badge insertion to enter the protected area would cause an alarm. As currently designed, the badge readers at the entrance turnstiles would allow an authorized employee to grant protected area access to an unauthorized individual.

The licensee's configuration of the security building partially mitigates the concern with the turnstiles. As designed, security personnel inside the secondary alarm station are capable of continuously observing employees (and the card readers) as they utilize the turnstiles to enter the plant protected area. The inspector discussed this concern during the exit meeting on February 7, 1997, and stated that the licensee's turnstile system satisfied regulatory requirements.

(2) X-ray Machines

The inspector observed the licensee conduct limited testing of the two x-ray machines in the security building. During these tests, it was determined that the monitors for one of the x-ray machines were not showing a complete side-to-side view of items passed through the x-ray tunnel. As a result, portions of objects passed along the extreme edges of the x-ray belt and the area between the belt and the side of the x-ray tunnel could not be viewed by the machine operator. Specifically, the inspector observed that, whenever an object was passed through one of the x-ray machines along one of the outer edges, approximately 2-1/2 inches of the object could not be viewed on either the color or the black and white x-ray machine monitor.

Information Notice 90-67, "Potential Security Equipment Weaknesses," dated October 29, 1990, specifically informed licensees of similar weaknesses in x-ray machines.

Prior to the end of the inspection, the licensee had adequately adjusted the x-ray machine to allow for complete viewing of all objects passed through the x-ray tunnel. Additionally, during the inspection, the licensee stated that plant procedures would be modified to provide for similar periodic testing of all x-ray machines.

c. Conclusions

A very good program for searching personnel and vehicles was maintained. A weakness identified and corrected regarding one of the x-ray machines was corrected. A concern was identified in the entry turnstiles.

S5 Security and Safeguards Staff Training and Qualification

S5.1 Personnel Training and Qualification (81700-02.08)

a. Inspection Scope

The inspector reviewed the licensee's security training and qualification program to determine adequacy and compliance with the requirements of the 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, and contingency plans. 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 excellent conduct, and knowledge of the procedural requirements.

• Medical Examinations

The inspector reviewed medical examination records for five armed security officers and one (unarmed) security watchman. The medical records were complete and indicated that the required annual medical examinations were thorough and conducted in a timely manner. The results of the medical examinations were properly documented.

The inspector identified two armed security officers that had been granted medical waivers in accordance with the above paragraph. The corrected distance vision in the "other" eye for an officer was 20/100 (as opposed to the required maximum of 20/40), and the hearing loss at 2,000 Hz for another officer was 60 decibels (as opposed to the maximum of 40 decibels).

Paragraph 2.3.1 of the licensee's Training and Qualification Plan requires, in part, that distant visual acuity for armed security individuals shall be correctable to 20/30 in the better eye and 20/40 in the other eye with corrective lenses. Additionally, this paragraph also requires that the hearing for armed individuals (at 500 Hz, 1,000 Hz, and 2,000 Hz) shall have no hearing loss greater than 40 decibels at any one frequency. Further, this

paragraph provides that exceptions to vision and hearing requirements may be allowed on a case-by-case basis when it is shown that overall assigned security duties can be completed by the individual.

During the exit meeting on February 7, 1997, the inspector stated that, while the above two security officers did not meet the above specific vision and hearing requirements (nor the specific vision and hearing requirements of 10 CFR 73.55, Appendix B), these officers had been determined by the plant medical staff to be capable of performing overall assigned security duties and had been properly granted an exception by the security superintendent.

c. Conclusions

An effective security training program had been implemented. Medical examinations for security officers were thorough and well documented.

S6 Security Organization and Administration

S6.1 Management Support (81700-02.01)

a. Inspection Scope

The effectiveness and adequacy of management support was inspected to determine the degree of management support for the physical security program.

b. Observations and Findings

The inspector determined by discussions with security force personnel that the security program received strong support from senior management. The inspector determined that the security program was implemented by a well trained and highly qualified security staff. All members of the security organization had a clear understanding of their duties and responsibilities, however, the morale of the security officers remained relatively low. The licensee attributed this low morale to the past plant hiring freeze and the current plan to transition the majority of the security organization from a proprietary security force to a contract security company.

On January 8, 1997, the licensee announced that, based upon a recent "business decision," during the next 2 years, portions of the proprietary security force would be transitioned to a contract security company. This announcement indicated that the security superintendent, the security administrative staff, the security training and compliance sections, and shift lieutenants would remain employed by the plant. The remaining security sergeants, security officers, and watchmen would be transitioned to the contract security company.

The security officers stated to the inspector that the security superintendent had recently provided written answers to several questions regarding their transition to a security contract company.

c. Conclusions

Senior management support for the security organization was strong. The security program was implemented by a well trained and highly qualified staff. The low morale of the security officers was attributed, in part, to the licensee's recent announcement to transition the majority of the security force from a proprietary security force to a contract security company.

S7 Quality Assurance in Security and Safeguards Activities

S7.1 Security Program Audit (81700-02.01)

a. Inspection Scope

The audits of the security program were inspected to determine compliance with the requirements of 10 CFR 50.54(p), the physical security plan, and Technical Specification 6.5.2.8.1.

b. Observation and Findings

The inspector confirmed that security program audits had been conducted at least every 12 months as required. The inspector reviewed Quality Evaluations Audit Reports listed in the attachment. The inspector interviewed audit personnel and confirmed that they were independent of plant security management and plant security management supervision. Additionally, the inspector reviewed Self Assessment Reports and Surveillance Reports listed in the attachment.

During the exit meeting on February 7, 1997, the inspector stated that three areas of the overall security program had not been included in the audits. These areas included: protected and vital area detection aids, assessment aids, and communications. The inspector did not identify any specific violations of regulatory requirements, but this observation is considered a weakness in the licensee's overall audit of the security program.

c. Conclusions

Individually, the 1996 audits of the security program were adequate. A weakness was identified regarding three security program areas that were not included in the audits.

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 February 7, 1997. The licensee acknowledged the findings presented.

ATTACHMENT

PARTIAL LIST OF PERSONS CONTACTED

Licensee

J. Birk, Specialist, Access Screening
G. Burchart, Manager, Human Resources
T. Damashek, Supervisor, Licensing
D. Erbe, Supervisor, Security Operations
R. Flannigan, Manager, Nuclear Engineering Safety and Licensing
C. Fowler, Manager, Integrated Plant Scheduling
J. Johnson, Superintendent, Security
S. Koenig, Supervisor, Quality Evaluations
M. Lutz, Coordinator, Security Administration
O. Maynard, President and Chief Executive Officer
B. McKinney, Plant Manager
W. Norton, Manager, Performance Improvement and Assessment
P. O'Connor, Specialist, Access Screening
C. Reekie, Engineering Specialist III, Licensing
E. Schmotzer, Manager, Purchasing and Material Services
C. Younie, Manager, Operations

NRC

F. Ringwald, Senior Resident Inspector

INSPECTION PROCEDURES USED

IP 81700 Physical Security Program for Power Reactors

LIST OF ITEMS OPENED AND CLOSED

Open

50-482/9707-01 NCV Failure to Lock Security Patrol Vehicle

Closed

50-482/9707-01 NCV Failure to Lock Security Patrol Vehicle

LIST OF DOCUMENTS REVIEWED

Security event logs from April 1 through December 31, 1996, and miscellaneous security incident reports

Wolf Creek Plant Procedures:

AP 27-004 Controlling Safeguards Information, Revision 1
AP 27-005, Cargo Search, Revision 2
SEC 01-108, Security System Performance Testing, Revision 41
SEC 01-402, Security Personnel Training and Qualification, Revision 13
SEC 50-130, Compensatory Requirements, Revision 35

Wolf Creek Plant Access Training, ACAD 93-009, Revision 27 (partial)

Surveillance Reports:

Controlling Safeguards Information, January 16, 1996
Security Contingency Drills, January 24, 1996

Self Assessment Reports:

SEL 96-019, Material/Cargo Entry, May 1, 1996
SEP 96-020, Key Issue and Control, August 23, 1996

Quality Evaluations Audit Reports:

Security and Visitor Control, August 6, 1996
Fitness For Duty and Access Control, September 10, 1996

Security Officer Training Records (composite listing)

Background Investigation (file) Records for Four Individuals Granted Unescorted Access Authorization to the Protected Area

Medical Records for Six Members of the Security Organization

Security System Testing Logs for 1996 (partial) Regarding: Detection Probability, Manholes, Passive Barrier Tests, Shift Device Tests, Weekly Device Tests, and Visual Alarm Displays