

ENCLOSURE

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

Docket Nos.: 50-445
50-446

License Nos.: NPF-87
NPF-89

Report No.: 50-445/98-16
50-446/98-16

Licensee: TU Electric

Facility: Comanche Peak Steam Electric Station, Units 1 and 2

Location: FM-56
Glen Rose, Texas

Dates: October 19-23, 1998

Inspector(s): D. Schaefer, Security Specialist, Plant Support Branch

Approved By: Blaine Murray, Chief, Plant Support Branch
Division of Reactor Safety

Attachment: Supplemental Information

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EXECUTIVE SUMMARY

Comanche Peak Steam Electric Station, Units 1 and 2
NRC Inspection Report 50-445/98-16; 50-446/98-16

This was an announced inspection of the licensee's physical security program. The areas inspected included: testing and maintenance, protected area barrier and detection aids, vital area barriers and detection aids, compensatory measures, security system power supply, security event logs, security training and qualification, Information Notices, and review of previous inspection findings.

Plant Support

- Performance in the physical security area was very good. An excellent security system testing and maintenance program was conducted and documented. Very good protected area barriers and detection systems were maintained. Effective vital area barriers and detection systems were in place. Compensatory measures were generally deployed in a manner consistent with the requirements of the security plan. A very good security backup power supply system was in place. A good program for reporting security events was in place (Sections S2.1, S2.2, S2.3, S2.4, S2.5, S3.1).
- A noncited violation was identified involving the failure of a security officer, posted as a compensatory measure, to maintain control of personnel access through a vital door. The licensee took corrective actions to address this issue; therefore, an NCV was issued, as allowed by Section VII.B.1 of the Enforcement Policy (Section S2.4).
- A noncited violation was identified in which an incorrectly programmed security card reader allowed an unauthorized employee to gain unescorted access to a vital area. The licensee took corrective actions to address this issue; therefore, an NCV was issued, as allowed by Section VII.B.1 of the Enforcement Policy (Section S3.1).
- A noncited violation was identified in which a security officer inadvertently allowed an employee to enter the protected area without being searched. The licensee took corrective actions to address this issue; therefore, an NCV was issued, as allowed by Section VII.B.1 of the Enforcement Policy (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, 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, and protected and vital area barriers and portals. The testing and maintenance program was excellent.

c. Conclusions

An excellent 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 Barrier 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 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, and e-field detection systems. The detection systems were well designed and maintained, and all attempts to intrude into the protected area were detected. The microwave heads were double and triple stacked and 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

Very good protected area barriers and detection systems were maintained. All attempts 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 industrial 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 Instruction 4.0, Revision 4, "Compensatory and Contingency Instruction," that the licensee generally 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.

During the inspection, the inspector reviewed the licensee's safeguards event reports. On September 23, 1998, the licensee identified that a security officer had failed to adequately perform compensatory security measures on September 22, 1998. During this event, a compensatory security officer posted at open vital area door No. 351 did not notice that an employee had entered the vital area without correctly inserting his card key into the card reader and receiving a green light.

The licensee's investigation of this event determined that the security officer had not positioned herself where she could observe the access-granted (green) light on the card reader as personnel entered and exited security door No. 351. Following this event, the security officer was retrained.

Section 10.4.1 of the physical security plan requires that equivalent protection is provided to the plant throughout the duration of equipment degradation.

Section 4.0.1.3.D of Security Instruction 4.0, "Compensatory and Contingency Instruction," Revision 4, requires that the compensatory security officer posted at vital area access points (doors) be positioned in such a manner that the officer can maintain control of personnel access and egress through the door, gate, or turnstile. Specifically, the security officer will ensure that the individual punches his key card into the entry reader and receives a green light.

The failure of the security officer to maintain control of personnel access through vital area door No. 351 via ensuring that all individuals punch their key card into the entry reader and receive a green light is a violation of Section 10.4.1 of the Physical Security Plan. This nonrepetitive, licensee-identified, and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the NRC Enforcement Policy (50-445/9816-01; 50-446/9816-01).

c. Conclusions

The licensee generally deployed compensatory measures in a manner consistent with the requirements of the security plan. A noncited violation was identified involving the failure of a security officer, posted as a compensatory measure, to maintain control of personnel access through a vital door. In this regard, the compensatory measure was inadequate.

S2.5 Security System Power Supply

a. Inspection Scope (71750)

The security system power supply was inspected to determine compliance with the requirements of the Industrial Security Plan.

b. Observations and Findings

The inspector reviewed the licensee's design and operation of the security backup power supply system that provided emergency power to required security equipment. The licensee demonstrated that upon simulating a loss of off-site power, the internal battery system immediately took over supplying required components of the security systems with power. The test required the system to remain on the internal battery system for 1 hour. The inspector determined through interviews of security staff that the security backup power supply system performed as required. The inspector also verified that, upon transfer to the backup power system, an automatic indication was received in the alarm stations.

c. Conclusions

A very good security backup power supply system was in place.

S3 Security and Safeguards Procedures and Documentation

S3.1 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.

b. Observations and Findings

The inspector reviewed the security event logs from June 1 to October 5, 1998. 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.

- (1) On June 9, 1998, the licensee identified that an unauthorized employee had gained access to a vital area. During this event, an employee badged for unescorted access to the control room (access level-4) entered the electrical

control building (access level-5) through door No. 9 in the control room. The employee had not been authorized access to level-5 vital areas; however, his badge had unlocked door No. 9 and allowed him access into the electrical control building.

The licensee's investigation of this event determined that the employee had gained access into an unauthorized vital area because the different access levels (levels 4 and 5) for the different vital areas on either side of door No. 9 had been programmed backwards into the card reader at door No. 9. Following this event, the licensee reprogrammed the security access levels at door No. 9. During the inspection, the inspector verified that the proper access levels had been programmed into the card reader at door No. 9.

Section 6.3.3 of the physical security plan states, in part, that personnel entry through vital doors "is denied when an unauthorized ACAD (card key) is inserted in a card reader."

The failure of the licensee's security system to deny access when an unauthorized ACAD was inserted in a card reader at door No. 9 is a violation of Section 6.3.3 of the physical security plan. This violation allowed an unauthorized employee unescorted access to a vital area. This nonrepetitive, licensee-identified, and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the NRC Enforcement Policy (50-445/9816-02; 50-446/9816-02).

- (2) On August 7, 1998, the licensee identified that a security officer had inadvertently allowed an employee to enter the protected area without being searched. During this event, an employee entered the Alternate Access Point, processed through the explosive detector, placed his notebook on the (operating) X-ray machine belt, processed through the metal detector, picked up his notebook from the other end of the X-ray machine belt, and utilized his card key to process through the turnstiles and enter the protected area. (Note: All individuals retain their key cards for unescorted site access; the key cards are not maintained at the plant.) During this time, there was no security officer monitoring the operation of the search train equipment (explosive and metal detectors and the X-ray machine). Upon discovery of this event, the licensee contacted the (unsearched) employee and determined through interviews and a search of his route inside the protected area that he had not brought any unauthorized material into the protected area.

The licensee's investigation of this event determined that, due to a misunderstanding, the security officer originally assigned to operate the X-ray machine had left the area for approximately 2 minutes to get a drink of water. During her absence from the X-ray machine, the officer had been lead to believe that another specific security officer would temporarily operate the X-ray machine. Instead, the relieving officer left the Alternate Access Point to perform other security duties.

The security officer originally assigned to the X-ray machine received disciplinary action. Additionally, a security bulletin was issued which reinforced the security instruction that no one was to leave a security post for any reason other than what is defined in the security instruction, and that the Security Post Record is to be completed upon leaving the post for any reason.

Section 6.2.4 of the physical security plan requires, in part, that all personnel entering the Alternate Access Point are searched by security personnel prior to entering the protected area; hand carried items are searched through the use of X-ray examination equipment.

The failure of the licensee's security personnel to search an individual's notebook via X-ray examination equipment prior to entering the protected area is a violation of Section 6.2.4 of the physical security plan. This nonrepetitive, licensee-identified, and corrected violation is being treated as a noncited violation consistent with Section VII.B.1 of the NRC Enforcement Policy (50-445/9816-03; 50-446/9816-03).

c. Conclusions

A good program for reporting security events was in place. The security staff was correctly reporting security events. A noncited violation was identified in which an incorrectly programmed security card reader allowed an unauthorized employee to gain unescorted access to a vital area. A second noncited violation was identified in which a security officer inadvertently allowed an employee to enter the protected area without being searched.

S5 Security and Safeguards Staff Training and Qualification

S5.1 Security Training and Qualification

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 and the individual training records for six security officers, 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.

The inspector reviewed copies of medical examination records for six security officers. The medical records were complete and indicated that the required annual medical examinations were conducted in a timely manner. The results of the medical examinations were properly documented.

c. Conclusions

A very good security training program had been implemented. 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, 92902)

S8.1 Information Notice 98-35: Threat Assessments and Consideration of Heightened Physical Protection Measures

Information Notice 98-35 dated September 4, 1998, was issued to inform licensees of factors considered by the NRC when assessing threats and disseminating that information to the licensees. Additionally, the Notice advised licensees of the NRC's suggestion of what additional physical protection measures should be considered for specific threat conditions. The Notice discussed threat levels and appropriate response levels in an effort to avoid misunderstanding of future NRC threat advisories and to facilitate an appropriate and comparable level of physical protection response throughout the nuclear industry.

During this inspection, the licensee stated they had received this Notice and had reviewed it for applicability.

S8.2 (Open) Inspection Followup Item 50-445;-446/9811-03: Activation of HALON Fire Suppression System

During a previous inspection, the licensee reported that on March 20, 1998, the activation of the licensee's HALON fire suppression system had forced the evacuation of the central alarm station for approximately 3 hours. The HALON audio alarm system had been installed immediately outside the central alarm station. If the alarm station operator had known that the alarm outside the central alarm station pertained to the interior portion of the central alarm station, he could have manually shut off the HALON prior to its activation in the absence of a fire.

The licensee's investigation determined that the activation of the HALON fire suppression system was caused by a faulty component. Additionally, the licensee stated that the HALON system had been changed to manual activation and that a HALON alarm would be installed inside the central alarm station.

During this inspection, the licensee stated that this project had been assigned a design change number (DCN) and anticipated completion of this project by November 9, 1998. This item remains open pending review of the installed alarm.

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 October 23, 1998. The licensee acknowledged the findings presented. No proprietary information was identified.

ATTACHMENT

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

C. Terry Senior Vice President and Principal Nuclear Officer
M. Blevins, Vice President, Nuclear Operations
D. Alps, Security Manager
J. Ardizzoni, Administrative Security Coordinator
J. Ayers, Plant Support Overview Manager
C. Beerck, Senior Maintenance Analyst
B. Bird, Plant Support Manager
J. Braun, Systems Security Coordinator
K. Britt, Compliance Security Coordinator
J. Britt, Corporate Security Manager
J. Brown, Fitness-for-Duty Coordinator
D. Buschbaum, Technical Compliance
P. Combs, Nuclear Support Assistant
W. Cravey, Training Security Coordinator
A. Hall, Operations Overview Manager
N. Harris, Senior Regulatory Compliance Specialist
M. Marciniak, SMART Team 1 - Security
P. Mills, Nuclear Overview Senior Specialist
P. Passalugo, SMART Team 1, System Engineer

Contractors

I. Askren, General Manager, Burns Security
B. Boedeker, Test Group Supervisor
M. Gilleland, Burns Training Supervisor

NRC

S. Schwind, Resident Inspector

INSPECTION PROCEDURES USED

IP 71750	Plant Support Activities
IP 81700	Physical Security Program for Power Reactors
IP 92700	Onsite Followup of Written Reports of Non-Routine Events at Power Reactor Facilities
IP 92904	Followup - Plant Support

LIST OF ITEMS OPENED CLOSED AND DISCUSSED

Items Opened

50-445;-446/9816-01	NCV	Security Officer Failed To Maintain Control of Personnel Access Through A Vital Door
50-445;-446/9816-02	NCV	Unauthorized Employee Gained Unescorted Access to Vital Area
50-445;-446/9816-03	NCV	Security Officer Inadvertently Allowed An Unsearched Employee to Enter the Protected Area

Items Closed

50-445;-446/9816-01	NCV	Security Officer Failed To Maintain Control of Personnel Access Through A Vital Door
50-445;-446/9816-02	NCV	Unauthorized Employee Gained Unescorted Access to Vital Area
50-445;-446/9816-03	NCV	Security Officer Inadvertently Allowed An Unsearched Employee to Enter the Protected Area

Items Discussed

50-445;-446/9811-02	IFI	Installation of HALON Alarm Inside an Alarm Station
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LIST OF DOCUMENTATION REVIEWED

Safeguards Event Logs from June 1 through October 5, 1998, plus security event trending reports and eighteen security incident reports

Computer listing of physical examinations and firearms qualifications

Individual training records for six security officers

Comanche Peak Steam Electric Station Security Operating Procedures

No. SEC-104, Revision 6, "Security Organization Nuclear Training Program"

No. SEC-108, Revision 6, "Security Reporting Requirements and Fitness for Duty Responsibilities"

No. SEC-302, Revision 12, "Personnel Identification, Key Card Badge Issuance, and Access Control"

No. SEC-506, Revision 10, "Security Equipment Testing and Observation"

Comanche Peak Steam Electric Station Security Instructions

No. 3.2, Revision 13, "Access Control"

No. 3.5, Revision 10, "Protected Area and Vital Area Patrols"

No. 4.0, Revision 4, "Compensatory and Contingency Instruction"