

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket Nos: 50-254; 50-265
License Nos: DPR-29; DPR-30

Report Nos: 50-254/98007(DRS); 50-265/98007(DRS)

Licensee: Commonwealth Edison Company (ComEd)

Facility: Quad Cities Nuclear Power Station, Units 1 and 2

Location: 22710 206th Avenue North
Cordova, IL 61242

Dates: March 30 - April 3, 1998

Inspector: T. Madedo, Physical Security Inspector

Approved by: James R. Creed, Chief, Plant Support Branch 1
Division of Reactor Safety

EXECUTIVE SUMMARY

Quad Cities Nuclear Power Station
NRC Inspection Reports 50-254/98007; 50-265/98007

This inspection reviewed plant support activities relating to the physical protection of the Quad Cities facility. The report evaluated the effectiveness of alarm station activities, control of personnel and packages, performance of protected area detection aids and vehicle barriers, adequacy of security procedures and event logs, response capabilities, management effectiveness, and included follow up of previous inspection findings.

- Security alarm station activities were conducted in an effective manner. Access functions related to personnel and package control were conducted in accordance with regulatory requirements. (Section S1)
- The vehicle barrier system and protected area detection aids were effective in meeting their designed functions. (Section S2)
- Security procedures and required documentation were well written and accurately described the required task or event. (Section S3)
- Security and plant personnel demonstrated an effective level of awareness and knowledge of security requirements. (Section S4)
- Management controls were not effective on three occasions to ensure that licensee corrective actions were properly implemented. On two occasions maintenance management failed to recognize that corrective action was not implemented. On one occasion security management's corrective action was not totally effective in preventing a similar problem. (Section S7)

Report Details

IV. Plant Support

S1 Conduct of Security and Safeguards Activities

a. Inspection Scope (81700)

The inspector evaluated the effectiveness of the operations of the alarm stations to verify that they were equipped with the appropriate equipment, continuously staffed, and that there were no activities that would interfere with the execution of alarm station functions.

The inspector also observed personnel search activities and the control of packages and material before they entered the protected area and while within the protected area.

b. Observations and Findings

The inspector observed that alarm station operators were knowledgeable in alarm station duties and operations. Each operator effectively demonstrated his/her ability to properly implement alarm, surveillance and communication activities. The inspector verified by observation, interviews and review of appropriate alarms station records that both alarm stations were continuously manned by trained and qualified personnel.

The inspector observed that both alarm stations could independently detect a threat and call for assistance and neither alarm station contained any operational activities that would interfere with the execution of alarm station activities.

The inspector observed on several occasions that security personnel exercised positive control to ensure that only authorized individuals were granted access to the protected area, and personnel that entered the protected area were properly searched for unauthorized materials.

The licensee's package control process was observed by the inspector at protected area access points and within the protected and vital areas. The inspector verified that packages and material were properly identified, authorized, controlled and searched.

c. Conclusions

The inspector concluded that alarm station activities were conducted in an effective manner. Access control activities that related to personnel and package control were performed in accordance with regulatory requirements.

S2 Status of Security Facilities and Equipment

a. Inspection Scope (81700)

The inspector evaluated and reviewed the effectiveness of the vehicle barrier system and protected area detection aids. Inspection activities included observation and review of records of those systems.

b. Observations and Findings

The inspector verified, through observation, the integrity of the vehicle barrier system and that the conditions of the barrier were consistent with regulatory requirements. No changes were noted in the configuration of the barrier or the type of equipment installed. No problems were identified in the operation of active barriers. The inspector verified, through a review of records, that surveillance activities of the vehicle barrier system were conducted in a timely manner.

Inspector review of the licensee's protected area detection aids, through observation and review of testing records, verified the effective operation of the protected area intrusion alarm system. Review of operational alarm records showed that the protected area intrusion alarm system exhibited an effective level of reliability and that maintenance activities related to that system were conducted in a timely manner.

c. Conclusions

The vehicle barrier system and protected area detection aids were effective in meeting their designed functions.

S3 Security and Safeguards Procedures and Documentation

a. Inspection Scope (81700)

The inspector reviewed selected security procedures and post orders pertaining to the areas inspected and also reviewed appropriate logs, records, and other documents pertaining to security operations observed.

b. Observations and Findings

The procedures reviewed were of sufficient depth to describe the tasks to be completed. The procedures were also reviewed by licensee security staff personnel at the appropriate time intervals and revised as necessary. Security event logs, alarm station activity logs, incident reports and other records reviewed, were complete and accurate.

Conclusions

Security procedures were well written and accurately described the tasks. Reviewed documentation were accurate and completed in a timely manner.

S4 Security and Safeguards Staff Knowledge and Performance

a. Inspection Scope (81700)

The inspector toured various security posts, including both alarm stations and the Main Access Facility. Peak protected area ingress and egress periods were observed. Visitor processing was also observed. During these observations, the inspector evaluated security force personnel's knowledge of post requirements and their performance of duties. Security event logs and other records pertaining to security force performance were also reviewed.

b. Observations and Findings

Security personnel were knowledgeable of ongoing security operations and effectively conducted monitoring activities when security equipment was out-of-service. Security supervisors were briefed on ongoing security and plant related activities and closely monitored security personnel actions and activities. Security personnel interviewed or observed while on post were knowledgeable of post requirements. The inspector observed that cognizant security and maintenance personnel worked well together and security related maintenance activities were generally well coordinated between the two organizations. Access controls for entry into the protected area were conducted in accordance with procedure and security plan requirements.

c. Conclusions

Security force members were knowledgeable of post requirements and performed their duties well. Security supervisors were active in providing good oversight of security activities. Plant personnel demonstrated a high level of awareness and compliance with security requirements during entry into the protected area.

S6 Security Organization and Administration

a. Inspection Scope (81700)

The inspector evaluated the effectiveness of licensee management support for the security program. Staffing levels were reviewed to ensure that the required number of supervisors, trained security officers, and armed response personnel were available to meet security response requirements specified in the licensee's security plan.

b. Observations and Findings

The inspector noted that licensee site and corporate management support played an important roll in upgrading security equipment to include the purchase of modern state-of-art x-ray and metal detection equipment, new security access control computers, and improving tactical training capabilities.

Review of security staffing records showed that manning requirements have been maintained at a level that met or exceeded security plan requirements.

c. Conclusions

The licensee met security force staffing levels required by their security plan. Management support has been effective in improving security equipment.

S7 Quality Assurance in Security and Safeguards Activities

S7 Ineffective Problem Solving

a. Inspection Scope (81020)

The inspector evaluated the effectiveness of the licensee's controls for identifying, analyzing, and resolving problems and the adequacy of corrective measures that were implemented to prevent recurring problems. The inspector's actions involved interviews of cognizant security and maintenance personnel and review of selected records.

b. Observations and Findings

Inspector review showed that on three occasions management controls were not totally effective in implementing measures to adequately resolve previously identified problems.

On one occasion, the inspector determined that licensee security management's activities to correct a specific weakness in their vehicle control program was not effective because a similar problem was identified by the inspector. On March 22, 1998, a security officer, while on a routine protected area vehicle patrol, identified that an ignition "lock-out" switch failed allowing a vehicle to be started without a key. Licensee security management corrected the problem by fixing the switch, but took no further action believing this to be a rare and isolated case. However, during our inspection the same type of problem was identified on another vehicle by the inspector on March 30, 1998. When identified, by the inspector, the licensee's security administrator required the testing of the ignition lock-out feature of current and future vehicle entering the site to ensure that all vehicles allowed access to the protected area had a properly working ignition lock-out switch. In addition, officers were trained on the technique for conducting the testing of lock-out switches.

Inspector review of the ignition "lock-out" switch problem showed it to be a component failure and not attributed to a lack of/or improper maintenance. Also, the opportunity for the unauthorized use of this type of vehicle was not significant because an adversary could not predict or identify when this type of failure would happen.

Two other examples of weak management control in problem resolution were also identified. On both occasions, the licensee's Quality Safety and Assessment Group identified that the licensee's maintenance organization had not followed through on

commitments to improve oversight activities of their preventive maintenance program for security related equipment. In both examples, maintenance management personnel failed to follow-through on ensuring that problems with security equipment were adequately and effectively corrected. (Note: The licensee's Quality Safety and Assessment surveillance activities noted above were conducted to verify the adequacy and completion of licensee corrective action to resolve two previous NRC inspection findings.)

c. Conclusions

The inspector identified through self-identification and through review of licensee quality assessment activities three examples where problems were identified but licensee management personnel resolution was not effective to correct the problem. Adequate corrective actions have since been implemented to resolve the individual problems.

S8 Miscellaneous Security and Safeguards Issues

S8.1 (Closed) Security Event Report (SER) 96002 dated June 4, 1996, and Revision 01, dated September 18, 1996: This SER and revision pertained to apparent falsification of background information during security background investigations for personnel being considered for unescorted access to the protected area. The licensee's corporate security staff have completed their inquiry into this matter and have advised the NRC of their findings and conclusions. This issue is closed as a specific item for the Quad Cities Station.

S8.2 (Open) Unresolved Item (50-254/97004-02; 50-265/97004-02): The unresolved item involved the adequacy of security barriers that penetrated a vital area and the bullet-resistance of those barriers. This issue was referred to NRC Headquarters, Office of Nuclear Reactor Regulation, for resolution by memorandum dated April 22, 1997.

Subsequent to our identification of the unresolved item, the inspector determined that the licensee had implemented compensatory measures until removed ceiling tiles were replaced that hide the barriers from view. This item will remain open pending NRC Headquarters' determination of the adequacy of the barriers. Security personnel from the Office of Nuclear Reactor Regulation confirmed that their review will be completed by May 1, 1998. The region intends to resolve this item during our next inspection which is scheduled for August 1998.

S8.3 (Closed) Inspection Follow up Item (50-254/97020-01; 50-265/97020-01): Maintenance repair activities related to security camera wipers were not effective or timely.

The inspector verified that wiper problems have been resolved and that during our inspection security camera wipers were functioning as designed. The inspector also determined that the maintenance department is reviewing their oversight activities to improve the performance of their preventative maintenance program for the repair of security equipment. This item is closed.

- S8.4 (Closed) Inspection Follow up Item (50-254/97020-02; 50-265/97020-02): An inadequate procedure contributed to a failure of a vehicle security barrier gate to operate as designed.

The inspector verified that procedural guidance for the operation of the vehicle barrier gate was revised to provide operational instructions to operate the gate during a failure of the hydraulic system. This item is closed.

- S8.5 (Closed) Follow up to AMS No. RIII 97-0164 (50-254; 50-265): Our review of a licensee investigation in response to the AMS noted above identified the potential that an individual appeared to have been granted access authorization to a vital area without having a work-related need to enter that area.

Inspector review showed that the individual had a job position that required a work related need to access the vital area. When licensee security management determined that work related need no longer existed access to that area was denied. This item is closed.

V. Management Meeting

XI Exit Meeting Summary

The inspector presented the inspection results to members of licensee management at the conclusion of the inspection on April 3, 1998. Licensee personnel acknowledged our findings.

PARTIAL LIST OF PERSONS CONTACTED

Licensee

K. Leech, Station Security Administrator
L. Pearce, Station Manager
C. Peterson, Regulatory Affairs
B. Rittmer, Assistant Station Security Administrator
R. Sager, Station Vice President
M. Wayland, Manager, Maintenance

NRC

C. Miller, Senior Resident Inspector
K. Walton, Resident Inspector

INSPECTION PROCEDURES USED

IP 81700 Physical Security Program For Power Reactors
IP 81020 Management Effectiveness

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

50-254; 265/97020-01	IFI	Maintenance support activities to repair a specific type of security equipment was not effective or timely.
50-254; 265/97020-02	IFI	An inadequacy in the security procedure was identified.
50-265/96002, Rev. 0, and Rev. 1	SER	Falsification of background investigation records.

Discussed

50-254; 265/97004-02	URI	Adequacy of a vital area barrier.
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LIST OF ACRONYMS USED

IFI	Inspection Follow up Item
NRC	Nuclear Regulatory Commission
SER	Security Event Report
URI	Unresolved Item.

DOCUMENTS REVIEWED

Licensee Security Event Logs
Security Incident Reports
Maintenance Repair Logs

October 1997 to March 1998
October 1997 to March 1998
October 1997 to March 1998