

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-254/90004(DRSS); 50-265/90003(DRSS)

Docket Nos. 50-254; 50-265

Licenses No. DPR-29; DPR-30

Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, IL 60690

Facility Name: Quad Cities Nuclear Generating Station, Units 1 and 2

Inspection At: Quad Cities Site, Cordova, Illinois

Inspection Conducted: March 12-16, 1990

Inspector: James Belanger for
James R. Kniceley
Physical Security Inspector

3/23/90
Date

Approved By: James R. Creed
James R. Creed, Chief
Safeguards Section

3/23/90
Date

Inspection Summary

Inspection on March 12-16, 1990 (Reports No. 50-254/90004(DRSS);
No. 50-265/90003(DRSS))

Areas Inspected: Routine unannounced physical security inspection involving: Management Support, Security Program Plans, and Audits; Protected and Vital Area Physical Barriers, Detection and Assessment Aids; Protected and Vital Access Control of Personnel, Packages and Vehicles; Alarm Stations and Communications; Power Supply; Testing, Maintenance and Compensatory Measures; Security Training/Qualification; TI 2515/102 - (SIMS No. MPA L9-07) "Land Vehicle Bomb Contingency Procedure Verification;" Review of licensee actions taken during an unusual event involving a tornado which struck the facility on March 13, 1990. The inspector also reviewed licensee reported events and previous inspection findings.

Results: One licensee identified violation dealing with the escorting of visitors was reported to the NRC as required by 10 CFR 73.71. The licensee's immediate and long term corrective actions were adequate. The licensee was found to be in compliance with NRC requirements within the other areas examined. Temporary Instruction 2515/102 was reviewed and closed. Licensee management attention to and involvement in security activities is excellent. The licensee's security response to and recovery from the tornado was outstanding.

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DETAILS

1. Key Persons Contacted

In addition to key members of the licensee's staff listed below, the inspector interviewed other licensee employees and members of the security organization. The asterisk (*) denotes those present at the Exit Interview conducted on March 16, 1990.

- *R. Bax, Station Manager, Commonwealth Edison Company (CECo)
- *J. Sirovy, Services Director, CECo
- *T. Barber, Regulatory Assurance, CECo
- *A. Scott, Quality Assurance Engineer, CECo
- *F. Willaford, Nuclear Security Administrator, CECo
- *K. Leech, Station Security Administrator, CECo
- *W. Holland, Assistant Station Security Administrator
- *K. Hungerford, Assistant Site Manager, Burns International Security Services, Inc. (BISSI)
- *S. Williams, Site Manager, BISSI
- *J. French, District Manager, BISSI

- R. Higgins, Senior Resident Inspector, NRC Region III
- *R. Bocanegra, Resident Inspector, NRC Region III
- J. Shine, Resident Inspector, NRC Region III

2. Followup on a Generic Letter (IP 92703)

(Closed) Land Vehicle Bomb Contingency Procedure Verification
(Temporary Instruction 2515/102))

Generic Letter 89-07, dated April 28, 1989, and its enclosure, provided guidance for licensees to consider in planning for a land vehicle bomb potential threat. Generic Letter 89-07 also required licensees to confirm in writing, within 180 days from the date of receipt of the generic letter, that they have included in their safeguards contingency planning those short-term actions that could be taken to cope with the land vehicle bomb threat.

The licensee provided the written confirmation by letter dated October 27, 1989, stating that their safeguards contingency plan had been revised to include short-term measures that could be taken to protect against attempted radiological sabotage involving a land vehicle bomb.

The inspector verified by interviews and a review of records that the safeguards contingency plan and appropriate safeguards contingency procedure (QSP 600-27 Revision 1 dated November 1989) were revised to include planning to counter the land vehicle bomb threat. Also, the inspector verified that the procedure addressed the possibility of receiving a warning from the NRC about the threat and that resources needed to implement short-range contingency measures are available. This item is closed.

3. Entrance and Exit Interviews (IP 30703)

- a. At the beginning of the inspection, Mr. K. Leech, Security Administrator and Mr. J. Sirovy, Services Director were informed of the purpose of this visit and the functional areas to be examined.
- b. The inspector met with the licensee representatives denoted in Section 1 at the conclusion of the inspection on March 16, 1990. A general description of the scope of the inspection was provided. Briefly listed below are the findings discussed during the exit interview.
 - (1) Personnel were advised that the visitors found without their escort was a violation of their Security Plan but meets the criteria of a "Licensee Identified" noncited violation (NCV) in accordance with 10 CFR Part 2, Appendix C, Section V.G. Therefore, a separate Notice of Violation will not be issued. (Refer to Section 5.a.)
 - (2) The licensee was advised and acknowledged that the security force response to the tornado was outstanding and management's support for repairing damaged security related equipment was exceptional. (Refer to Section 5.b.)

4. Program Areas Inspected

Listed below are the inspection areas which were examined by the inspector within the scope of these inspection activities. These areas were reviewed and evaluated as deemed necessary by the inspector to meet the specified "Inspection Requirements" (Section 02) of NRC Inspection Manual as applicable to the security plan. Sampling reviews included interviews, observations, testing of equipment, documentation review and, at times, drills or exercises that provide independent verification to meet security commitments. The depth and scope of activities were conducted as deemed appropriate and necessary for the program area and operational status of the security system.

<u>Number</u>	<u>Program Area and Inspection Requirements Reviewed</u>
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81700	<u>Physical Security Program for Power Reactors</u>
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- a. Management Support: (02.01a) Degree of Management Support; (02.01b) Change to Security Plans Properly Reported and do not Reduce Security Effectiveness.
- b. Protected and Vital Area Barriers: (02.02a) PA and VA Barriers Meet Commitments and Provide Required Penetration Resistance; (02.02b) Isolation Zones Adequately Maintained; (02.02c) Detection Aids Functionally Effective, Meet Commitments, and no Vulnerabilities to Avoid Detection; (02.02d) Assessment Aids Functional and Effective and meet Commitments.

- c. Access Control - Personnel, Packages, and Vehicles:
(02.03a) Positive Access Control to include: Proper Identification; Required Personnel Screening Completed; Immediate Measures to Prevent Access when Person is Terminated or Transferred for Cause; Adequate Search Upon Entering PA; Badges Displayed; Visitors Escorted; Emergency Access to Vital Equipment; VA Access is Duty Related; (02.03b) Packages Searched and Properly Authorized; (02.03c) Vehicles Properly Authorized, Searched, and Controlled; Access to Vehicle Gates Controlled.
- d. Alarm Stations and Communications: (02.04a) Alarm Stations Adequately Equipped with Alarm, Surveillance, and Communications; Continuously Manned and Independent Functioning Capability; (02.04b) No CAS Interfering Operational Activities; (02.04c) Alarm Stations Have Continuous Communication Capability with Guards and LLEA.
- e. Power Supply: (02.05a) Secondary Power Source for Alarm and Communication Systems.
- f. Testing, Maintenance and Compensatory Measures:
(02.06a) Adequate Installation, Testing and Maintenance of Security Equipment; (02.06b) Compensatory Measures Implemented and Effective.
- g. Training and Qualification: (02.07a) Officers Trained, Equipped, and Qualified; (02.07b) Offices Possess Adequate Knowledge and Ability to Perform Duties; (02.07c) Responses are Consistent with Plans and Procedure Requirements; Safeguards Capabilities in SCP are Available, Effective, and Functional; (02.07d) Required Armed Response and Supervisor(s) Available.

- 81020 Management Effectiveness: (01) Effectiveness in Administering Security Program; (02) Management Awareness and Attitude.
- 81052 Physical Barriers - Protected Areas: (01) Adequacy of PA Barriers; (02) PA Barrier; (03) Separation of Barriers; (04) Isolation Zones; (05) Parking Areas; (07) Barrier Maintenance.
- 81064 Compensatory Measures: (01) Development of Compensatory Measures; (02) Employment of Compensatory Measures; (03) Effectiveness of Compensatory Measures.
- 81078 Detection Adis - Protected Area: (01) Detection System Capability; (02) Zoning of Alarm System; (05) Maintenance of Detection Zones.

5. Physical Security Program for Power Reactors (IP 81700):

One licensee identified noncited violation was identified and is described below:

- a. Section 3.5.4 of the approved Quad Cities Security Plan requires an escort keep the person(s) he is escorting under direct observation and control at all times.

Contrary to the above, on February 13, 1990, a badged contract supervisor escorted three contractors, badged as visitors, at the Unit 2 Drywell. The escort failed to visually keep the visitors under direct observational control because he failed to adequately turnover escort responsibilities when the visitors entered the drywell and he did not enter the drywell himself. (NCV 50-254/90004-01; NCV 50-265/90003-01)

At about 11:19 a.m. on Tuesday, February 13, 1990, a badged contractor supervisor escorted three contractors, badged as visitors, to the Unit 2 Drywell. The three visitor-badged contractors dressed out and checked into the drywell. The contractor supervisor did not dress out, but instead transferred the escort duties to a badged contractor already inside the drywell area. That individual later stated that he did not hear the first escort inform him of the transfer. The three contractor visitors entered the drywell area to work. A badged contractor was operating equipment on the catwalk, using a radio and headset to communicate to one of the visitors who was working on the first level of the drywell. The second visitor remained in the bull pen area with another badged contractor. The third visitor was doing general work on the ground floor of the drywell and left at 11:14 a.m. under escort. The escort for the remaining two visitors went to the basement of the drywell to work. At 12:35 p.m. the escort checked out of the drywell, leaving the two visitors in the drywell area. At 1:30 p.m., the two remaining visitors attempted to check out of the drywell. A security officer stopped them as they exited the drywell area because they did not have an escort. The supervisor that escorted the visitors to the drywell was waiting for them outside the area when they tried to exit. He escorted the visitors while they dressed into their street clothes and they were then turned over to a security officer who escorted the visitors to the guard house. It should be noted that there was only one entrance/exit to the drywell and access was controlled by a security officer.

The apparent cause of the violation was a misunderstanding of the duties of an escort inside the drywell area. The contractor supervisor escorts were trained and believed they understood the escort rules. However, they did not apply the rules to the drywell area because they thought that as long as the visitors could not leave the area, the line of sight rule need not apply. They did use the line of sight rule in all other areas.

The immediate corrective action was to inspect the work and the areas in the drywell where the visitors worked. There was no evidence of tampering or vandalism, and no signs of any damage or suspicious objects. The badges and access were withdrawn for the five contractors (two badged and three visitors) involved in the event until retraining of the five contractors was completed.

The licensee's long term corrective action include instituting a "one-on-one" escort rule in the drywell. As part of this rule, no transferal of escort duties will be allowed at the drywell radiation boundary. Escorts will be required to sign in on the back of the visitor's badges. Informational meetings and training will be performed for all onsite personnel to emphasize escort responsibilities and duties. Corporate security was contacted for expediting security clearances to eliminate visitors.

This event was significant because two visitors were allowed access to the drywell area unescorted for two hours and one for 20 minutes. The safety significance was minimized because all three visitors had been trained, badged, and worked at nuclear plant sites in the past, and two of the three were cleared for unescorted access the following morning, Wednesday, February 14, 1990.

Based on the findings, the incident meets the criteria as a "licensee identified" violation in accordance with 10 CFR Part 2, Appendix C, Section V.G. Therefore, a separate Notice of Violation will not be issued. The adequacy of the licensee's corrective actions will be reviewed during future inspections.

- b. On March 13, 1990 at about 5:08 p.m. (CST), in accordance with their Emergency Classification procedure the licensee declared an Unusual Event due to a tornado which touched down inside the protected area on the west side of the plant. The licensee had about a six minute advance warning of the impending tornado and security personnel started evacuating the contractor trailers. At about 5:00 p.m. (CST) a tornado touched down inside the protected area on the west side of the plant, severely damaging two contractor trailers and moderately damaging 9 others. Because security personnel had quickly evacuated the contractor trailers, personnel injury was avoided. One contractor employee suffered a minor injury and was taken to a nearby hospital. Overall damage to the plant was light.

Portions of the security fence and intrusion detection and assessment systems were damaged and the licensee took adequate immediate compensatory measures. The security inspector was notified of the event and responded to the site.

The inspector determined through observation that the response to and recovery from the tornado damage by security personnel, was outstanding. Within hours of the damage security equipment was temporarily repaired and serviceable.

By Saturday, March 17, 1990, permanent repair work on the damaged security fences was completed. Within days after the tornado the security system was repaired. The conduct of the security force during this contingency was exceptional.

The NRC issued a Preliminary Notification (PN) #PNO-111-90-17 dated March 14, 1990.