

**U.S. NUCLEAR REGULATORY COMMISSION**

**REGION III**

**Docket Nos:** 50-456; 50-457  
**License Nos:** NPF-72; NPF-77

**Report No:** 50-456/99020(DRS); 50-457/99020DRS)

**Licensee:** Commonwealth Edison Company

**Facility:** Braidwood Generating Station, Units 1 and 2

**Location:** RR #1, Box 84  
Braceville, IL 60407

**Inspection Dates:** November 29 to December 3, 1999, onsite  
December 7, 1999, NRC Region III Office

**Inspector:** G. Pirtle, Physical Security Inspector

**Approved by:** J. Creed, Safeguards Program Manager  
Division of Reactor Safety

## **EXECUTIVE SUMMARY**

### **Braidwood Generating Station, Units 1 and 2 NRC Inspection Report 50-456/99020(DRS); 50-457/99020(DRS)**

This inspection included a review of the physical security program. It was an announced inspection conducted by a regional security specialist.

- **Equipment observed functioned as designed and had high in-service time. Maintenance support for security equipment was timely. Barriers and defensive positions for the new plant protection strategy were effectively implemented. (Section S.2)**
- **Records and documents reviewed were complete and accurate. Procedures reviewed were well written. Minor administrative revision to the written agreement between the licensee and security contractor was required. Transition to a new security contractor and implementation of the new plant protection strategy were effective. (Sections S.3 and S.4)**
- **The Nuclear Oversight annual audit of the security program was adequate. (Section S.7)**

## V. Plant Support

### **S2 Status of Security Facilities and Equipment**

#### a. Inspection Scope (81700)

The inspector reviewed the condition of security equipment and facilities required by the security plan. The equipment observed included, for example, search equipment, intrusion alarm equipment, alarm assessment equipment, and equipment within the security alarm stations. Facilities observed included the Main Access Facility and the primary alarm station. The inspector also reviewed physical barriers and defensive positions constructed to support the revised plant protection strategy.

#### b. Observations and Findings

Security equipment observed during the inspection functioned as designed and compensatory measures were implemented when appropriate. Maintenance support for security equipment was timely. Security personnel observed on post were familiar with equipment capabilities on their posts.

Security equipment had a very high in-service time (exceeding 96%). No adverse performance trends were noted and repetitive work was seldom needed on security equipment. The maintenance technician dedicated to security equipment maintenance had recently completed manufacturer or vendor training for the x-ray equipment, the southwest microwave alarm system, and the E-field portion of the perimeter alarm system.

The inspector walked down the barriers and defensive positions employed for the new defense strategy. Barriers and defensive positions were in place, personnel were knowledgeable of their response locations and responsibilities, and over 240 drills were conducted to evaluate response force personnel knowledge and performance. Required minor modifications for two barriers were being tracked through the licensee's corrective action program.

#### c. Conclusions

Equipment observed functioned as designed and had a high in-service time. Maintenance support for security equipment was timely. Barriers and defensive positions for the new plant protection strategy were effectively implemented.

### **S3 Security and Safeguards Procedures and Documentation**

#### a. Inspection Scope (81700)

The inspector reviewed selected procedures pertaining to the areas inspected and also reviewed appropriate logs, records, and other documents.

b. Observations and Findings

The licensee had changed security contractors since the previous inspection. During review of the written agreement between the licensee and the new security contractor it was noted that requirements identified in 10 CFR 73.55(b)(1) pertaining to: the licensee's responsibility for maintaining safeguards in accordance with NRC regulations; inspecting and copying security records; and contractor personnel demonstrating abilities to perform required duties were not clearly addressed in the written agreement. The written agreement was revised to address the above areas before the close of the inspection.

The inspector performed a partial review of implementation of Revision 46 (dated October 19, 1999) to the Braidwood Station physical security plan. The revision identified an incorrect amount of ammunition that must be retained by a security force member armed with the designated contingency weapon. This concern was entered into the corrective action program and will be corrected in the next revision to the security plan. It should be noted that the security force response members were armed with more ammunition than the security plan required and this issue was therefore primarily administrative in nature. The revision also addressed the revised plant defense strategy and new qualification course for the contingency weapon. No deficiencies were noted in reference to the defensive barriers and positions or the new weapon qualification course. The effectiveness of the number of armed responders to protect the plant under the new defense strategy will be further evaluated during a future inspection.

The inspector reviewed the weapon qualification records of ten randomly selected armed response force members. All of the personnel had completed the qualification and familiarization course of fire for the new contingency weapon.

Records reviewed were complete and accurate. Procedures reviewed were well written. Security event logs were accurately documented and recorded within the required time frame.

c. Conclusions

Records and documents reviewed were complete and accurate. Procedures reviewed were well written. Minor administrative revision to the written agreement between the licensee and security contractor was required.

**S4 Security and Safeguards Staff Knowledge and Performance**

a. Inspection Scope (81700)

The inspector toured various security posts and observed performance of duties to determine if the officers were knowledgeable of post requirements. Security event logs and other records pertaining to security force performance were also reviewed.

**b. Observations and Findings**

Significant changes have occurred since the February 1999 inspection. Implementation of the new plant protection strategy and transition to a new security force contractor were effectively implemented and managed.

No deficiencies were noted during checks of security officers on post. Personnel were familiar with post requirements. Only three security event reports were attributed to security force error within the past three months.

**c. Conclusions**

Transition to a new security contractor and implementation of the new plant protection strategy were effective.

**S7 Quality Assurance in Security and Safeguards Activities**

**a. Inspection Scope (81700)**

The inspector reviewed the Nuclear Oversight annual audit of the security program.

**b. Observations and Findings**

The inspector reviewed the Nuclear Oversight (NO) annual audit of the security program documented in report number NOA-20-99-017, dated July 2, 1999. The NO assessment plan for the audit was also reviewed. The scope of the audit was adequate and the audit results were adequately documented. Audit scope for the physical security portion of the audit included: procedure control; physical protection system; contingencies; contraband control; security patrols and other areas. The audit report identified four findings and one observation. The findings pertained to protection of safeguards information or other administrative areas. The audit also identified that the security department had not met the number of self imposed performance exercises for March and May 1999.

**c. Conclusions**

The Nuclear Oversight annual audit of the security program was adequate.

**S8. Miscellaneous Security and Safeguards Issues (92904)**

**S8.1 (Closed) Inspection Followup Item (Report No. 50-456/97201-1):** A concern was identified about the weapons available for certain security force members (details are considered safeguards information and exempt from public disclosure). The licensee security staff obtained new weapons to address this concern. Review of randomly selected weapon qualification records for ten security officers showed that they had fired

the qualification and familiarization courses of fire for the new weapon. Personnel observed on post and assigned contingency responsibilities were armed with the new weapon.

- S8.2 (Open) Inspection Followup Item (Report No. 50-456/97201-2): A concern was identified about some aspects of the weapons course of fire used for the security force (details are considered safeguards information and exempt from public disclosure). The licensee security staff has developed a course of fire that addressed the concerns identified and described it in a security procedure. However, the security force members have not completed the course of fire.
- S8.3 (Closed) Inspection Followup Item (Report No. 50-456/98010-01; 50-457/98010-01): Several routine maintenance requests for the Vehicle Barrier System were not completed in a timely manner. During a February 1999 inspection, some of the items were found to not be in the maintenance scheduling system because of an error during a maintenance personnel change. During this inspection, it was confirmed that the maintenance items were within the scheduling system and being monitored by the system engineer. None of the remaining maintenance items decreased the overall effectiveness of the vehicle barriers.
- S8.4 (Closed) Inspection Followup Item (Report No. 50-456/98017-03; 50-457/98017-03): A licensee's investigation concluded that several contractor personnel may have adulterated their Fitness-For-Duty urine specimens to mask use of prohibited substances. No further actions are required by the licensee's security staff.
- S8.5 (Closed) Inspection Followup Item (Report No. 50-456/99004-01; 50-457/99004-01): The contractor security force turnover rate was excessive and had the potential to cause excessive overtime. Although the turnover rate for the past three months has been high, no overtime has been required to compensate for the turnover rate.

#### **X.1 Exit Meeting Summary**

The inspector presented the inspection results to licensee management personnel December 3, 1999. The licensee personnel acknowledged the findings presented. The inspector asked the licensee personnel whether any materials examined or inspection findings discussed during the exit meeting should be considered as proprietary or safeguards information. No proprietary or safeguards information was identified. The Site Security Administrator was advised on December 13, 1999, that no concerns or issues were identified during the in-office inspection effort.

## **PARTIAL LIST OF PERSONS CONTACTED**

### Licensee:

C. Dunn, Operations Manager  
G. Baker, Station Security Administrator  
M. Cassidy, NRC Coordinator  
R. Davis, Training Coordinator, The Wackenhut Corporation (TWC)  
C. Herzog, Services Manager  
J. Kinsella, Nuclear Oversight Assessor  
R. Lane, Nuclear Generation Group Security Director  
P. Obrien, Security Force Manager, TWC  
D. Pallansch, Manager, Training and Compliance, TWC  
B. Saunders, Supervisor, Nuclear Security Operations  
D. Turner, Assistant Station Security Administrator  
H. Walker, Administration Coordinator, TWC

### NRC

D. Pelton, Resident Inspector

## **INSPECTION PROCEDURES USED**

IP 81700      Physical Security Program For Power Reactors  
IP 92904      Followup - Plant Support

## ITEMS OPENED , CLOSED AND DISCUSSED

### Opened

None

### Closed

50-456/97201-1	IFI	Change of Primary Contingency Weapon
50-456/98010-01	IFI	Maintenance Requests For The Vehicle Barrier System
50-457/98010-01	IFI	Maintenance Requests For The Vehicle Barrier System
50-456/98017-03	IFI	Some Contractor Personnel Adulterated Their Fitness-For-Duty Test Sample
50-457/98017-03	IFI	Some Contractor Personnel Adulterated Their Fitness-For-Duty Test Sample
50-456/99004-01	IFI	Personnel Turnover Rate for the Security Force
50-457/99004-01	IFI	Personnel Turnover Rate for the Security Force

### Discussed

50-456/97201-2	IFI	Stress Fire Course For Contingency Weapon
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**PARTIAL LISTING OF DOCUMENTS REVIEWED**

**Security Event Logs Between July 1 and November 1, 1999**

**Braidwood Station Assessment Report NOA-20-99-017, dated July 2, 1999**

**Braidwood Security Procedure 07, "Security Equipment Testing" Revision 7, dated October 1998**

**Nuclear Generation Group Security Training Program Procedure, "Stress Fire Course Exercise", dated June 1999**

**Undated Second Quarter 1999 Common Security Assessment Plan, Nuclear Oversight Assessment**

**Nuclear Oversight Field Observation Form, dated September 14, 1999, "Training For New Defense Strategy"**

**Problem Identification Form A1999-03722, dated December 1, 1999, pertaining to contingency weapon ammunition**

**Amendment to Contract 5145, "Guard Service for Nuclear Generating Station", dated December 2, 1999**

**Contractor Security Force Status Reports For June through October 1999**

**Security Contractor Turnover Percentage For September and October 1999**

**Listing of Action Requests Written by Security Since July 1, 1999**

**Vehicle Barrier Inspection Checklist, dated October 7, 1999**

**Zone Alarm History by Clear Code Printout for October 3, November 14 and 28, 1999**