

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-295/94011(DRSS); 50-304/94011(DRSS)

Dockets No. 50-295; 50-304

Licenses No. DPR-39; DPR-48

Licensee: Commonwealth Edison Company  
Opus West III  
1400 Opus Place  
Downers Grove, IL 60515

Facility Name: Zion Nuclear Station, Units 1 and 2

Inspection Dates: April 25-29, 1994

Type of Inspection: Announced Physical Security Inspection

Date of Previous Physical Security Inspection: February 14-18, 1993  
February 22-24, 1994

Inspector: James L. Belanger  
James L. Belanger  
Senior Physical Security Inspector

5/19/94  
Date

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

5/26/94  
Date

Inspection Summary

Inspection on April 25-29, 1994 (Reports No. 50-295/94011(DRSS);  
50-304/94011(DRSS))

Areas Inspected: Routine, announced physical security inspection involving Protected Area Detection Aids; Management Effectiveness, and Responses to Security Threats and Drills.

Results: The following non-cited violation (NCV) was identified and reviewed during this inspection:

- An escort failed to provide visual contact of a visitor at all times.

The licensee's upgraded perimeter alarm system completed in September 1993 provided excellent detection capability.

One Inspection Followup Item was identified relating to an open six month old maintenance work request to replace a failed security inverter supply fan. The safety significance of this issue was that excessive heat could cause inverter circuit boards to fail. Despite the priority level assigned the work

request, there did not appear to be adequate management oversight of the project to assure timely completion.

A high number of overtime hours worked by the security force for the two weeks prior to this inspection were viewed as a potential problem should the trend continue. Forced overtime resulted from minimal staffing levels and a high number of unscheduled leave of absences for medical and family emergencies.

Management support for outside training for the security training staff and supervision was identified as a positive observation.

The quality of Local Law Enforcement Liaison was excellent and considered a program strength.

## DETAILS

### 1. Key Persons Contacted

In addition to the key members of the licensee's staff listed below, the inspector interviewed other employees, contractor personnel, and members of the security organization. The asterisk (\*) denotes those present at the onsite Exit Interview conducted on April 29, 1994.

- \*T. Broccolo, Station Manager, Commonwealth Edison Company (CECo)  
R. N. Cascarano, Support Services Director, CECO
- \*R. Milne, Station Security Administrator, CECO  
R. E. Morley Jr. Corporate Security CECO
- \*B. Finlay, Corporate Security, CECO
- \*J. LaFontaine, Work Support Superintendent, CECO
- \*G. Stojkovich, Regulatory Assurance, CECO
- \*K. J. Hansing, Station Quality Verification, CECO
- \*C. Claiborn, Security Force Manager, Burns Security
- \*K. Glasure, Assistant Security Force Manager, Burns Security

- J. D. Smith, Senior Resident Inspector, NRC
- \*P. Loughheed, Resident Inspector, NRC

### 2. Entrance and Exit Interviews

- a. At the beginning of the inspection, Mr. T. Broccolo, Station Manager, and other staff members 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 April 29, 1994.

A general description of the scope of the inspection was provided. Briefly listed below are the findings discussed during the exit interview.

- (1) The inspector stated that a non-cited violation pertaining to an unescorted visitor in a vital area was identified and reviewed during this inspection. (Report Details, Section 5.a)
- (2) The inspector stated that an open item was identified regarding the installation of the security inverter fan. The inspector stated that the safety significance of this issue was that circuit boards could fail if subjected to excessive heat. The inspector also noted that this security maintenance support for the security inverter was a problem in the past.

The licensee stated that installation of the fan would be initiated by May 11, 1994. (Report Details, Section 5.b)

- (3) The inspector stated that the negative trend in the number of security badges inadvertently being taken from the protected area was reversed through management awareness and attention. (Report Details, Section 4.c)
- (4) The inspector noted that security force morale, identified in the previous inspector as poor, improved through communication following key personnel changes in the contract security management organization, and was considered fair. (Report Details, Section 4.a)
- (5) The inspector noted that the amount of security force overtime of the month of April 1994 appeared excessive compared to previous months. The inspector noted that recently down-sized security force just covers standard security plan commitments. Absences have impacted scheduling and have resulted in non-voluntary overtime. The inspector stressed the importance of monitoring security force performance because of the amount of overtime being worked. The inspector stated that he did not observe any problems associated with performance during this inspection. (Report Details, Section 4.b )
- (6) The inspector acknowledged the improved professional working environment of the ingress search and visitor areas of the Main Access Control Facility which resulted from recent painting and housekeeping improvements.
- (7) The inspector stated that the quality of LLEA liaison was excellent and was viewed as a program strength. (Report Details, Section 5.d)
- (8) The inspector noted the positive observation that security management made the effort to encourage and foster outside training for training for training staff personnel and supervisors. (Report Details, Section 5.c)

### 3. Program Areas Inspected

Listed below are the areas examined by the inspector in which no findings, (strengths, violations, deviations, unresolved items or inspection followup items) were identified. Only findings are described in subsequent Report Details sections.

The below listed clear areas were reviewed and evaluated as deemed necessary by the inspector to meet the specified "Inspection Requirements" (Section 02) of the applicable NRC Inspection Procedure (IP). Sampling reviews included interviews, observations, and document reviews that provided independent verification of compliance with



requirements. Gathered data was also used to evaluate the adequacy of the reviewed program and operational status of the security system.

81700-Physical Security Inspection Program for Power Reactors

- .02 Effectiveness of Management Controls: (a) Effectiveness of licensee's controls for identifying, resolving and preventing problems; (b) Strengths or weaknesses in licensee's controls for the identification and resolution of reviewed issues that could enhance or degrade plant operations or safety.
- .04 Protected Area Detection Equipment: Intrusion Detection Systems are functional, effective and meet licensee commitments.
- .08 Security Training and Qualification: (b) Security personnel possess adequate knowledge and ability to carry out their assigned duties and responsibilities; (c) Responses by the security organization to security threats, contingencies and routine response situations, including drills, are consistent with the security procedures and the approved Physical Security Plan, or Safeguards Contingency Plan (SCP) and that the safeguards capabilities as specified in the licensee's SCP are available.

81020-Management Effectiveness

- .05 Management and People Related Problems

4. Management Effectiveness (IP 81020)

Inspector observations were made regarding security force morale, increased forced overtime to meet security plan commitments, and security badges leaving the protected area.

- a. Security Force Morale: The previous security inspection conducted in February 1994 identified that security force morale was low because of continuing personnel layoffs and job uncertainty for the future. The report noted that station management was sensitive to this issue.

A review of this issue during the current inspection showed that morale, although not good, had improved, possibly due to improved contract security communications with staff members during the backshifts. There was always a requirement that contract security managers conduct backshift reviews, but the managers now understand the importance of the contact with each shift and making themselves available.

- b. Security Force Overtime: The inspector noted the increased use of overtime, frequently forced, to provide adequate coverage for the various positions necessary to meet security plan commitments.

In April 1994, the number of required security posts increased because of a transformer fire that occurred at Easter. Overtime, much of it forced, was necessary to staff the additional posts. Security staffing has been adequate to meet the normal conditions but insufficient to cover unscheduled incidents. The current situation was aggravated because of approximately twelve officers of leave or absences for medical and personal reasons.

Overtime hours for the security force during the month of April 1994 exceeded 500 hours compared to the previous month of three hundred. Several supervisors told the inspector that they had to call in people who were no longer eligible (they had exceeded the guidelines for maximum hours/days worked which are based on the NRC guidelines for plant operators) because no one else was available. The issue of overtime has increased the stress level among the security force because of not knowing if one will be forced over on their shift. The inspector observed that performance continues to be good despite the overtime worked, however, continuation of current conditions could lead to a decrease in effectiveness. The licensee stated that the transformer repair project is expected to conclude in the next two weeks and this should significantly reduce the overtime required.

- c. Security Badges Leaving the Protected Area: The previous inspection report identified that a large number of security key card badges were being unintentionally removed by the holders after exiting the protected area turnstiles. The safety significance of this problem was greatly reduced by the licensee's software upgrade for the exit turnstiles. (This change makes keycards unusable in the security system until the keycard is reactivated in a special cardreader.)

Management awareness and attention to this problem resulted in a significant reduction in the number of badges taken out of the protected area. In February 1994, at the time of the previous security inspection, there were twenty-two such incidents. The management attention reduced the number to eight in March and five as of the date of this inspection for the month of April. The management attention appears to have been successful in reducing badges offsite and will be further reviewed over a longer period of time during the next inspection when the inspector will review the licensee's corrective actions relating to a violation involving badge control.

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

One non-cited violation (visitor control, Paragraph 5.a); one open item (maintenance of security inverter, Paragraph 5.b); a positive

observation (outside training, Paragraph 5.c); and a program strength (LLEA Liaison, Paragraph 5.d) were identified.

- a. NCV. A contractor visitor was left unescorted in a vital area for approximately fifteen minutes. The escort unintentionally left the visitor without assigning or obtaining another escort in violation of Paragraph 7.1.2 which states that escorts are provided for visitors. Paragraph C of security procedure ZSP-SP-303 requires that an escort will keep the visitor under direct observational control at all times. Zion Administrative Procedure 1120-04, Revision 0, Paragraph G.5 requires that assigned escorts maintain visual contact of visitors at all times or otherwise control the visitor's activities.

While performing a watch tour on April 12, 1994, at 10:16 p.m. a security officer found an unescorted visitor outside the turbine office, 642' East side of the turbine deck and assumed escort duties. The visitor was working on the Unit 2 main generator re-assembly.

The licensee performed a root cause investigation and interviewed the escort. The escort had been advised at the gatehouse of his responsibilities. The investigation showed that the cause was insufficient degree of attention applied to the task which led to the act of omission and a lack of recall. The escort simply forgot about his visitor. A change in job scope caused the escort to be thinking about his job and not the primary duties of being escort.

Immediate corrective actions included the security officer who had discovered the unescorted visitor assuming escort duties. Additionally, all other visitor escorts were contacted to verify visitor control and give the escorts a quick briefing of the event. The escort's supervisor and the security Response Team Leader explained visitor control procedures to the escort. Long term corrective actions required all station departments and contractors to review the event as a lessons learned at their weekly tailgate meetings.

The event was report to the NRC as a one hour reportable event under 10 CFR 73.71. There were no prior similar one hour events. The procedures pertaining to visitor control were found to be adequate. This event was an isolated failure of a single individual.

The violation was not cited because the criteria specified in Section VII.B of the "General Statement of Policy and Procedure for NRC Enforcement Actions," (Enforcement Policy, 10 CFR Part 2, Appendix C (1993).

- b. Inspection Followup Item: The licensee should install the security inverter supply fan. (IFI 50-295/94011-01, 50-304/94011-

01) The fan assures proper air flow to cool the circuit boards. Excessive heat could cause the boards to fail. The inverter room was being temporarily ventilated by a portable fan with the doors to the room open.

On November 13, 1993, the inverter supply fan failed and a B-1 work request was written. (Work on a B-1 work request should be initiated within forty eight hours and completed within seven days.) The mechanical maintenance department found that the fan assembly was basically destroyed. After trying to find the same system with no success (obsolete system), a parts evaluation was conducted for a replacement. The fan, complete with motor was ordered on December 3, 1993, and arrived onsite on January 24, 1994. Installation was scheduled for February 21, 1994, but was rescheduled to March 22, 1994, because the Mechanical Maintenance Department could not support the work due to dual unit outages. The staff was not available to complete the installation.

On March 17, 1994, the licensee was to install the fan. However, they discovered that the ordered fan had only a 3 horse power motor instead of a 10 horse power, which is required for proper air flow. A second purchase order was issued on March 22, 1994, for an adequate motor. It was due for delivery on April 10, 1994. The inspector determined that the motor was received on March 29, 1994. During the exit meeting the licensee committed to initiate installation by May 11, 1994, and to advise the inspector if the schedule should change. On May 18, 1994, the inspector was advised by the Station Security Administrator that the fan was operational on May 17, 1994 at 3:30 p.m.

Although we recognized that there was a dual outage and transformer repair project that occurred during this time period, there should have been more management attention in assuring the timely and accurate completion of this project.

- c. A positive observation was noted regarding the support and encouragement of management to provide security supervisors and the training staff with offsite training, thus fostering expertise and professionalism within the management organization. In this past year, selected personnel of the security force attended an urban combat school at Ft. Hood, Texas. The training instructors attended an FBI Bomb Identification Seminar and a Hostage Negotiation Class. A contracted professional security consultant conducted independent drills and evaluations of the tactical training program in an effort to improve the program.
- d. The quality of liaison with local law enforcement was considered a program strength. The licensee has promoted the use of the computerized firearms training facility (FATS) by LLEA trainers, supervisors, and officers. The licensee supported LLEA with new gas masks and a personal computer. They worked with the Zion police department in establishing an outdoor range to the mutual



benefit of both organizations. In the past year, the licensee conducted an exercise with the Zion SWAT team at Zion Station. This exercise gave both organizations the opportunity to work one on one in both hostage and tactical situations which were filmed for self critique purposes.

# IFS Data Entry Form

Reviewed By: \_\_\_\_\_  
Date: 1/1

Reactor/Vendor Inspection (IFS Option 1) \_\_\_\_\_ Docket Related/P21 Items (IFS Option 4)  
Items Opened (Y/N): Y  
\_\_\_\_\_ Material Inspection (IFS Option 2) \_\_\_\_\_ LER Items (IFS Option 5)  
591 (Y/N): \_\_\_\_\_  
Letter (Y/N): \_\_\_\_\_ Non-Docket Related Items (IFS Option 6)  
Clear (Y/N): \_\_\_\_\_

Site/Name: ZION 172

Report Transmittal Date: 03/23/94

Lead Inspector: QJB Responsible Org. Code: 3413

Report End Date: 04/29/94

	Report NBR	Docket NBR
A	<u>94011</u>	<u>05000295</u>
B	<u>94011</u>	<u>05000304</u>
C	_____	_____

Materials Only License NBR	*Docket Name

Update? (Y/N): \_\_\_\_\_ Opened IR/LER/P21 Number: \_\_\_\_\_

\*\*\* Sequence NBR: 01 Item Type: IFI \*\* Severity: \_\_\_\_\_ \*\* Supplement: \_\_\_\_\_

Status	*UPD I/R	*Proj. Closeout	*Actual Closeout	Materials Only		
				10 CFR	License Cond.	Tie Down
A	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____
B	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____
C	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____

Title: MAINTENANCE OF SECURITY INVERTER (55 character width)

\*Closeout Org: \_\_\_\_\_ \*Closeout EMP: \_\_\_\_\_ \*Contact EMP: \_\_\_\_\_ \*Procedure: \_\_\_\_\_ \*Functl Area: \_\_\_\_\_  
\*Cause CD: \_\_\_\_\_ \*\* EA Number: \_\_\_\_\_ \*\* NOV/NNC Issue Date: 1/1

Text: UNTIMELY INSTALLATION OF SECURITY INVERTER FAN. FAN  
Needed to be installed in SECURITY INVERTER ROOM TO PROTECT  
CIRCUIT BOARDS.

Update? (Y/N): \_\_\_\_\_ Opened IR/LER/P21 Number: \_\_\_\_\_

\*\*\* Sequence NBR: \_\_\_\_\_ Item Type: \_\_\_\_\_ \*\* Severity: \_\_\_\_\_ \*\* Supplement: \_\_\_\_\_

Status	*UPD I/R	*Proj. Closeout	Actual Closeout	Materials Only		
				10 CFR	License Cond.	Tie Down
A	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____
B	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____
C	_____	<u>1/1</u>	<u>1/1</u>	_____	_____	_____

Title: \_\_\_\_\_ (55 character width)

\*Closeout Org: \_\_\_\_\_ \*Closeout EMP: \_\_\_\_\_ \*Contact EMP: \_\_\_\_\_ \*Procedure: \_\_\_\_\_ \*Functl Area: \_\_\_\_\_  
\*Cause CD: \_\_\_\_\_ \*\* EA Number: \_\_\_\_\_ \*\* NOV/NNC Issue Date: 1/1

Text: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3 \*\*\* Sequence NRR is not applicable for docket related/P21, LER or non-docket related items  
2 \*\* Severity, Supplement and NOV/NNC only applicable for violations; EA Number only applicable for Apparent Violations  
1 \* Optional FIELDS

Region III - RITS System  
Inspection Report Tracking Subsystem (IRTS)  
Data Input/Update Sheet

Instructions: Each record in this database is defined by the Docket Number and the Report Number combination. For each IRTS update, this specific data must be included. Please fill out all fields in **BOLD** that apply. Upon completion of this form, please forward it to the Resource Management Branch (RMB, DRMA), for data entry.

DOCKET/LIC NO. 50-295 REPORT NO. 94011 INSP. TYPE R  
-Regular  
T-Team  
S-SALP

DOCKET/LIC NO. 50-304 REPORT NO. 94011

REGION: 3 RITS INITIALS: QJB MPS\_ORG:     

LEAD INSPECTOR'S NAME: JAMES L BELANGER

INSP COMP DATE: 4/29/94 REPORT DUE:     /    /      
(Date Inspection Ended)

REPORT SENT: 05/25/94 POSTED DUE:     /    /      
(Date Inspection Report Mailed)

RESPONSE: N (Y-YES, N-NO) RESPONSE DUE:     /    /    

STATUS: C (C-CLOSED, X-CANCELLED,      OPEN)

COMPLETED DATE:     /    /      
(Date Licensee Response Received)

COMMENTS:

Form Filled Out By: J Belonger Date: 5/4/94 Rev 4-7-94/lr:RMB