

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 50-461/87018(DRSS)

Docket No. 50-461

License No. NPF-55

Licensee: Illinois Power Company  
500 South 27th Street  
Decatur, IL 62525

Facility Name: Clinton Power Station, Unit 1

Inspection Conducted: February 27 through April 29, 1987 in USNRC  
Region III Office

Date of Previous Physical Protection Inspection: December 1-15, 1986

Type of Inspection: Special Allegation Review

Inspector: Terry J. Macdonald for  
Gary L. Pirtle  
Physical Security Inspector

5/26/87  
Date

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

5/26/87  
Date

Approved By: W. L. Axelson  
W. L. Axelson, Chief  
Nuclear Materials Safety  
and Safeguards

5/28/87  
Date

Inspection Summary

Inspection on February 27 through April 29, 1987 (Report No. 50-461/87018(DRSS))  
Areas Inspected: Special inspection of allegations pertaining to failure to implement required compensatory measures when false alarm criteria is exceeded.  
Results: The allegation was partially substantiated and a violation was cited for failure to implement required compensatory measures when false alarm criteria was exceeded on February 15, 1987. The licensee's investigation of the issue lacked sufficient scope and depth to support their conclusion. The actions by the security liaison officer were determined not to be arbitrary in nature.

(Details of the violation, and specific zones and required compensatory measures are considered UNCLASSIFIED SAFEGUARDS INFORMATION).

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**WARNING**

**Unauthorized Disclosure Is Prohibited,  
Section 147 Atomic Energy Act 1954  
And 10.CFR 73.21. Violations Subject  
To Civil And Criminal Sanctions.**

DETAILS

1. Key Persons Contacted

- \*K. Baker, Licensing/NRC Interface, Illinois Power (IP)
- \*J. Palchak, Supervisor, Plant Support Services, IP
- \*F. Timmons, Supervisor, Plant Security, IP
- \*B. DeMarc, Quality Assurance Specialist, IP

The asterisk (\*) denotes those present during the telephone Exit Interview conducted on April 29, 1987.

2. Exit Meeting (MC 30703)

The inspector conducted a telephone exit meeting with the licensee representatives noted in Section 1 above at the conclusion of the investigation on April 29, 1987.

The licensee representatives were advised that the review of documentation requested from them had been completed and that the NRC staff's analysis had concluded that the cause for the alarms in the two zones could not reasonably be attributed to weather conditions, as determined by the liaison officer. They were also advised that the investigation conducted pertaining to the issue lacked sufficient scope and depth to support the conclusion that the alarms were probably caused by winds. The inspector also noted during the exit interview that a similar concern was discussed with security management during the previous onsite inspection (refer to Section 3 for related information).

The licensee/NRC Interface representative stated that the concerns were understood by the personnel present and would be addressed.

3. Independent Inspection - Allegation Review (IP 92706)

The following information provided in the form of an allegation was reviewed by the inspector as specifically noted below:

- a. Background: (Closed) Allegation No. RIII-87-A-0018. The NRC Region III office received information on February 23, 1987, alleging that the security organization failed to implement required compensatory measures on February 15, 1987, when certain perimeter alarm zones exceeded false alarm criteria. (NOTE: The specific alarm zones, the false alarm criteria, and specific required compensatory measures are considered unclassified Safeguards Information and exempt from public disclosure in accordance with 10 CFR 73.21).

The licensee was requested, by letter dated March 16, 1987, to send security computer printouts showing alarms received on the protected area perimeter between February 10-22, 1987. Additionally, a copy of

any document which provided guidance in determining causes for alarms, and a copy of the licensee's investigation pertaining to documenting causes for alarms were also requested. The latter document was requested because the licensee had received a call on February 20, 1987, on the Quality Concern Hotline regarding changing annotation of security alarms on February 15-16, 1987. The February 20th call to the Quality Hotline was related to the information subsequently provided to NRC Region III on February 23, 1987. The licensee provided the requested documents on April 15, 1987.

The investigation pertaining to the allegation was completed on April 29, 1987, and the licensee was advised of the investigation conclusions on that date (refer to Section 2 for related information).

- b. **Allegation:** The specific allegation was that between 2300 hours and 2400 hours (11 p.m. to 12 a.m.) on February 15, 1987, three protected area perimeter intrusion detection zones had caused false alarms which exceeded the false alarm criteria in the licensee's security plan, and these zones were not compensated for as required by Section 3.1.4.4 and 3.1.4.7 of the licensee's security plan because the Illinois Power security liaison officer directed that the alarms be considered weather-related and therefore not false alarms since the cause (wind) was known. The security liaison officer also allegedly directed that further alarms for the zones were to be considered weather-related unless a positive cause for the alarm, such as an animal in the zone, was observed. The alleged considered the security liaison officer's decision as arbitrary and made to prevent posting of compensatory measures as required by the security plan.
- c. **Review:** The licensee initiated a Condition Report and investigation pertaining to three perimeter intrusion detection alarm zones exceeding false alarm criteria between 2300-2400 hours on February 15, 1987, and not being compensated for as required by the licensee's security plan. The investigation report, dated March 9, 1987, concluded that two of the three zones had caused false alarms between 2300-2400 hours that exceeded false alarm criteria in the security plan.

These alarms had been annotated as FA1 (False Alarm, cause unknown/unfounded) by the alarm station operator as a result of on-the-scene assessment by a security officer that responded to the alarm. The contract security force supervisor initiated posting of compensatory measures, but the licensee security liaison officer terminated implementation of the measures. The investigation report also concluded that failure to compensate for the two zones constituted a violation of Section 3.1.4.4 of the licensee's security plan. Part of the generic corrective action was to retrain the security liaison officer on security plan requirements relating



to compensatory measures, and licensee and contract security supervisions were briefed on security plan and procedural compliance. The investigation report also concluded that weather conditions (wind) were the probable cause for the alarms on the two zones between 2300-2400 hours on February 15, 1987, and no other potential causes were identified in the investigation report.

The inspector confirmed through review of the alarm history printout for the three zones that two of the three zones had caused alarms between 2300-2400 hours on February 15, 1987, which were annotated as false alarms, and the numbers of such false alarms had exceeded criteria allowed by the security plan. The inspector also confirmed that the third zone identified by the alleged did not cause the number of false alarms between 2300-2400 hours that would require compensatory measures to be implemented. The alarm history printout showed that compensatory measures were not implemented for one of the zones which exceeded false alarm criteria and that compensatory measures for the other zone was implemented at 2359 hours.

Interviews result with the Supervisor, Plant Security showed that the compensatory measures for one zone were not implemented because the security liaison officer determined the alarms to be weather-related. The security liaison officer also terminated compensatory measures which were implemented at 2359 hours on February 15, 1987, earlier than required by the security plan, because he determined the alarms for the zone to also be weather-related. The investigation report shows that the security liaison officer advised the Supervisor, Plant Security of his decision in reference to considering certain alarms as weather-related. He also directed the security force that further alarms were to be considered weather-related if existing weather conditions continued and no other visible cause for the alarm was known. Subsequent alarms in the zones were annotated as such. The security liaison officer's instructions were so specific that they may have had an adverse impact on independent judgment by officers responding to the alarm as to the probable cause of such alarms.

The inspector's review of the allegation showed that the licensee's investigation into the issue lacked sufficient scope and depth to accurately conclude that the probable cause for the alarms was weather-related. A review of the alarm history printout for all intrusion detection zones along the perimeter showed that no other zones had caused any alarms between 2300-2400 hours on February 15, 1987. Interviews with the Supervisor, Plant Security showed that all of the perimeter alarm zones were operational during this period. Additionally, a telephone interview with a technical representative for the manufacturer of one type of alarm involved was conducted by the inspector. The technical representative for Stellar Systems, Inc., of Santa Clara, California stated that wind or dust alone should not cause false alarms if the alarm device is properly grounded, tensioned, installed, and maintained. Wind blown

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objects into the zone could cause alarms if of sufficient mass. It should be noted that closed circuit television assessment and on scene assessment of alarms did not note wind blown objects as a probable cause. The lack of any alarms from the other zones between 2300-2400 hours on February 15, 1987 tends to support the technical representatives conclusions. Winds during the time in question were gusting to 35 mph or higher.

During the previous inspection of the security program at Clinton (December 1-15, 1986), the inspector noted the security force's tendency to attribute weather conditions to perimeter zone alarms when it appeared, in some cases, to be questionable (e.g. attributing alarms in one zone to weather conditions when adjacent zones were not receiving alarms). This item was not included in the inspection report at that time because it was not considered a problem of such scope and frequency as to warrant documentation in an inspection report. However, security management was advised of the need to be sensitive to the issue. This issue will be monitored during future inspections (461/87018-01).

d. Conclusions: The investigation pertaining to the allegation resulted in the following conclusions:

- (1) Required compensatory measures were not implemented as required by Section 3.1.4.4 of the licensee's security plan when two perimeter intrusion alarm zones exceeded false alarm criteria between 2300-2400 hours on February 15, 1987. This constituted a violation of the licensee's security plan and has been cited as such. (Details of the violation are unclassified safeguards information and exempt from public disclosure in accordance with 10 CFR 73.21). (461/87018-02)
- (2) The licensee's investigation into the issue lacked sufficient depth and scope to support the conclusion that the alarms received between 2300-2400 hours on February 15, 1987 were probably caused by existing weather conditions.
- (3) The security liaison officer erred in determining that the alarms received between 2300-2400 hours on February 15, 1987 were caused by the wind. He did not have sufficient information at the time to counter on scene assessment of the alarm cause conducted by security officers at the time the alarms were received. However, his decision was not arbitrary because the weather conditions were severe and he had advised his supervisor of his determination prior to implementing action.
- (4) The security liaison officer's instructions to consider subsequent alarms for the zones as weather-related unless a positive cause was determined may have had an adverse

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affect on implementing subsequent compensatory measures for zones exceeding the false alarm criteria. However, his instructions had a basis, as a result of a conversation with his supervisor, and do not appear to have been given solely to violate security plan requirements.

Therefore, the allegation was partially substantiated in that required compensatory measures were not implemented because of instructions provided by the security liaison officer, and the liaison officer had provided instructions that subsequent alarms were to be considered weather-related unless a positive cause was found. The allegation that the security liaison officer's actions were arbitrary in nature was not substantiated.

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