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U. S. Nuclear Regulatory Commission
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Subject: Arkansas Nuclear One – Units 1 and 2
Docket No. 50-313; 50-368
License No. DPR-51; NPF-6
Safeguards Event Report 50-313/2002-S01-00; 50-368/2002-S01-00

Dear Sir or Madam:

In accordance with 10CFR73.71(d) and Paragraph I of Appendix G to 10CFR73, enclosed is the subject report concerning a security perimeter microwave field. The enclosure contains no commitments.

Sincerely,

Sherrie R. Cotton

Sherrie R. Cotton
Director, Nuclear Safety Assurance

SRC/tfs

enclosure

IE74

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NRC FORM 366 (1-2001) U.S. NUCLEAR REGULATORY COMMISSION

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LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Arkansas Nuclear One Units 1 and 2	05000313/368	1 OF 5

TITLE (4) Safeguards Event Report: Compensatory Measures Were Removed While A Security Perimeter Intrusion Detection Microwave Field Remained Disarmed

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
04	12	2002	2002	S01	00	05	10	2002	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	N/1
POWER LEVEL (10)	100/75

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR: (Check one or more) (11)

20.2201(b)	20.2203(a)(3)(i)	50.73(a)(2)(i)(C)	50.73(a)(2)(vii)
20.2201(d)	20.2203(a)(3)(ii)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(A)
20.2203(a)(1)	20.2203(a)(4)	50.73(a)(2)(ii)(B)	50.73(a)(2)(viii)(B)
20.2203(a)(2)(i)	50.36(c)(1)(i)(A)	50.73(a)(2)(iii)	50.73(a)(2)(ix)(A)
20.2203(a)(2)(ii)	50.36(c)(1)(ii)(A)	50.73(a)(2)(iv)(A)	50.73(a)(2)(x)
20.2203(a)(2)(iii)	50.36(c)(2)	50.73(a)(2)(v)(A)	73.71(a)(4)
20.2203(a)(2)(iv)	50.46(a)(3)(ii)	50.73(a)(2)(v)(B)	73.71(a)(5)
20.2203(a)(2)(v)	50.73(a)(2)(i)(A)	50.73(a)(2)(v)(C)	X OTHER
20.2203(a)(2)(vi)	50.73(a)(2)(i)(B)	50.73(a)(2)(v)(D)	Specify in Abstract or NRC Form 366A

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Thomas Scott, Nuclear Safety and Licensing Specialist	501-858-4623

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MO	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO				

ABSTRACT (16)

While performing maintenance on a site perimeter intrusion detection electronic field (EF-3), the microwave field (MW-3) in the same zone was disarmed to prevent nuisance alarms created by the work. EF-3 was returned to service and compensatory measures were removed while MW-3 remained disarmed. While the CAS Supervisor was completing security paperwork for the maintenance on EF-3, he realized that MW-3 remained disarmed. Compensatory measures were immediately established and maintained until MW-3 was tested and returned to service. The event did not involve any unauthorized or undetected access to the site protected area. Corrective actions include implementation of a turnover checklist for CAS and SAS personnel and a requirement for security officers posted in the field to have written instructions describing information regarding their post.

A. Plant Status

At the time of this event, Arkansas Nuclear One Unit 1 (ANO-1) was operating at 100 percent power and Arkansas Nuclear One Unit 2 (ANO-2) was operating at approximately 75 percent power.

B. Event Description

On April 12, 2002, compensatory measures were removed while a security perimeter intrusion detection microwave field remained disarmed.

At ANO, the security system includes a Central Alarm Station (CAS) and Secondary Alarm Station (SAS). In each location are closed circuit television monitors, a security equipment transaction monitor, and various computer systems. The SAS operator provides the backup for the CAS functions, such as opening or closing compensatory posts. At the time of this event, five CAS qualified officers were assigned to the shift. Because of the high activity level due to a unit outage, two officers were assigned to CAS. One of the CAS officers was serving as the Central Access Control (CAC) officer with duties to maintain the Compensatory Measures Listing computer log (comp log). During a normal shift, each individual in the CAS/SAS rotation performs duties as CAS operator, SAS operator, CAC officer, and are posted at each of two defensive strategy response positions. The rotation occurs at approximately two hour intervals. There is normally a CAS Supervisor assigned to oversee the CAS/SAS operation and assist as necessary.

At 0925 on April 12, 2002, maintenance was requested on perimeter intrusion detection electronic field EF-3 due to unexplained alarms. The zone containing EF-3, located south of the Secondary Guard Station, is also covered by microwave detection system MW-3; however, the coverage is not redundant. The CAS Supervisor, who was present at the perimeter zone, directed the CAS operator to place MW-3 and EF-3 into a disarmed status (incapable of generating an intrusion alarm). The reason for this action was to prevent nuisance alarms created by work on EF-3. The CAS Supervisor had authority to make this decision. The CAS operator, with the concurrence of the SAS operator, disarmed the equipment. The CAS Supervisor provided the required compensation at the affected zone and the CAC officer made the appropriate entry into the comp log.

At 0930, a security officer arrived at the zone and assumed responsibility for compensation from the CAS Supervisor. The CAS Supervisor verbally communicated the status of the disarmed

fields, the reason for the posting, that both fields would require testing before the post could be closed, and that this information was required to be passed on to any subsequent relief officer. Using the security radio system, the CAS operator repeated these instructions to the security officer.

At 0945, post rotation occurred in CAS. Verbal information was exchanged but the turnover briefing was not structured. At 1100, the officer posted at the affected zone was relieved. A verbal turnover briefing specific to the nature of the post and equipment status was provided. At 1105, the SAS operator was relieved. These individuals do not recall information being transmitted regarding EF-3 and MW-3 being disarmed. Post rotation occurred in CAS at 1201 with a verbal information exchange. Post rotation occurred in the affected zone at 1255. The officer being relieved provided no turnover information and the relieving officer asked no questions. At 1314, SAS post rotation occurred with a verbal information exchange.

At 1315, maintenance personnel completed work on EF-3 and departed the area. A security supervisor and security officer arrived at the zone at 1350 to conduct post-maintenance testing. When EF-3 was armed, it did not pass testing requirements and maintenance personnel were contacted. EF-3 was disarmed at 1404. Maintenance personnel arrived at 1420. At 1435, EF-3 was armed and a series of sensitivity adjustments were conducted while it remained in the armed status. Adjustments were completed at 1445 and security personnel began testing. Post rotation occurred in CAS at 1450. The posting for EF-3 was discussed, but no mention was made of the status of MW-3. The Security Lieutenant performing a post check at 1507 provided a water break relief for the officer posted at the zone. No information regarding equipment status was passed on to the Lieutenant.

Validation testing of EF-3 was completed at 1511. Neither the security supervisor overseeing the testing nor the Lieutenant providing compensatory measures knew that MW-3 was disarmed. The security officer who performed the testing did not recall information previously communicated to him regarding the disarmed status of MW-3. Upon verifying that the testing had been successfully completed, the CAS operator directed closing the post. Since EF-3 had to be in an armed status to conduct the testing, the CAS operator did not refer to the arm/disarm status screen. Also, at that time, the CAS operator had his attention directed to assessment of unrelated system alarms that were occurring. There was no CAC officer in CAS at that time due to an emergent request for vehicle escort and the CAS operator made a note to record information about the de-posting in the comp log at the next available opportunity.

At 1636, the CAS Supervisor was in the process of completing security paperwork for the maintenance on EF-3 when he realized that MW-3 was still in a disarmed mode with no compensatory measures in place. A security officer was immediately dispatched to provide compensation. An evaluation of the consequences of the absence of compensatory measures was performed (see paragraph "E" below). MW-3 subsequently successfully passed testing and the compensatory post was appropriately closed at 1700.

C. Root Cause

A human performance error review and root cause analysis determined that the root cause of this event was inadequate definition of job performance standards. A specific requirement for a structured turnover in CAS and SAS had not been established. Security officers in this rotation share these duties and turnover was informal. Also, management expectations for use of written post instructions had not been established. Security shift supervision was using judgement and discretion to make decisions regarding which temporary posts required written instructions.

A contributing cause for this event was the inadequate verbal turnover in which the security officer at the zone did not pass along any information to the relieving officer.

D. Corrective Actions

A turnover checklist was developed and implemented for personnel working in the CAS/SAS rotation. The checklist prompts the officers to review with each other equipment status (including arming or disarming), the security shift report, the compensatory measures listing for all security postings, and additional items such as defensive strategy issues.

Instructions have been provided to Security Shift Commanders to eliminate discretion with regard to the use of written instructions for officers posted in the field. Regardless of the duration of the compensatory posting, the officer manning the post is expected to have on his/her person a written instruction describing the duties of the post along with any special considerations that must be taken before closing the post.

A self-assessment team was assembled to review the event and the associated processes. The team included representatives from other security organizations. Recommendations from this team identified additional process enhancements.

E. Safety Significance

Upon identification of the condition, the Security Shift Commander verified with the Control Rooms of both units that no unusual or suspicious activity had been reported to Operations personnel. During the time when the compensatory measures were not in effect, there were no unexplained alarms on any security intrusion detection system or door. Security site checkpoint personnel verified that no unauthorized vehicle or person had entered the site through the checkpoints. Further, the event occurred on a bright, clear day, the area was monitored by closed circuit television, the area immediately outside the alarm zone is randomly patrolled by security personnel, and no damage to fence barriers that surround the alarm zone was identified. Based on this evidence, no unauthorized or undetected access to the site protected area occurred due to this event. Because the degraded detection capability that occurred due to this event was not predictable, it was not exploitable by a potential intruder. This event is judged to have had minimal actual safety significance.

F. Basis for Reportability

Paragraph 2.2.21 of Regulatory Guide 5.62 Revision 1, "Reporting of Safeguards Events," states that uncompensated loss of the ability to detect within a single intrusion detection system zone requires a one-hour notification to the NRC Operations Center per 10CFR73 Appendix G Paragraph I(c). That notification was made at 1726 CDT on April 12, 2002. This report is being submitted as required by 10CFR73.71(d) and Paragraph I of Appendix G to 10CFR73.

G. Additional Information

There have been no previous similar events reported by ANO.

Times provided in the event description are approximate.

Security force members are contractor employees.