

LICENSEE EVENT REPORT (LER)

(See reverse for required number of
digits/characters for each block)

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)

Cook Nuclear Plant Unit 1

DOCKET NUMBER (2)

05000-315

PAGE (3)

1 OF 3

TITLE (4)

Vulnerability in the Locking Mechanism of Four Vital Area Gates

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
03	08	1999	1999	S001	00	04	07	1999	Cook Nuclear Plant Unit 2	05000-316
									FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		5	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more) (11)							
			20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)	50.73(a)(2)(viii)
POWER LEVEL (10)		0%	20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)	50.73(a)(2)(x)
			20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)	73.71
			20.2203(a)(2)(ii)			20.2203(a)(4)			50.73(a)(2)(iv)	☒ OTHER
			20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).		X	NO	EXPECTED	MONTH	DAY	YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On March 8, 1999, at approximately 1400 hours, with both units in Mode 5, the lock for a vital area gate leading to the Unit 1 4KV Switchgear area was discovered by the security captain and a locksmith to be nonconforming and vulnerable to unauthorized access. At 1546 hours, it was determined that this constituted a failure, degradation or discovered vulnerability in a safeguard system that could allow unauthorized or undetected access to a protected area, material access area, controlled access area, vital area or transport for which compensatory measures have not been employed and was reportable as a safeguards event pursuant to the requirements of 10CFR73, Appendix G, paragraph I(c) and 10CFR73.71(b)(1). An Emergency Notification System (ENS) report was made to NRC at 1645 hours. The analogous vital area gate for the Unit 2 4 KV Switchgear was inspected and determined to be operable. Three additional gates were discovered to be nonconforming during the extent of condition investigation and ENS notification updates were made.

The apparent causes for this event were inadequate gate design and inadequate procedures. Upon identification of the nonconforming gates, compensatory measures were promptly implemented. Gate repairs/modifications are being made to eliminate nonconforming conditions. Compensatory measures will remain in place until the gates are returned to operable. Procedures for testing and maintenance of security gates will be revised to prevent recurrence.

Follow-up investigations confirmed that the vital areas secured by the four gates were not compromised. Therefore, there were no implications to the health and safety of the public as a result of this event.

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		1999	S001	00	

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Conditions Prior To Event

Unit 1 Mode 5 at 0% power

Unit 2 Mode 5 at 0% power

Description Of The Event

On March 8, 1999, at approximately 1400 hours, with both units in Mode 5, the lock for a vital area gate leading to the Unit 1 4KV Switchgear area was discovered, by the security captain and a locksmith, to be nonconforming and vulnerable to unauthorized access. At 1546 it was determined that this constituted a failure, degradation or discovered vulnerability in a safeguard system that could allow unauthorized or undetected access to a protected area, material access area, controlled access area, vital area or transport for which compensatory measures have not been employed. An Emergency Notification System (ENS) report was made to NRC at 1645 hours. The analogous vital area gate for the Unit 2 4 KV Switchgear Unit 2 was inspected and determined to be operable.

Three additional gates were discovered to be nonconforming during the extent of condition investigation of other safeguard gates in the plant. During this investigation, it was identified that the entry gate into Unit 1 Upper Containment could not be inspected, due to a hose in the gate opening. However, this gate has had compensatory measures in place since May 1998, in support of plant activities which require it to be open. The vital area gates to Unit 2 West Motor Driven Auxiliary Feedwater Pump Room Access and Unit 2 Essential Service Water (ESW) Pump Room Access were discovered to be nonconforming at approximately 1637 and 1706 hours, respectively, on March 8, 1999. An ENS update report was made to NRC at 1838 hours.

The gate to Unit 2 Access to the Spent Fuel Pit Area from the Auxiliary Cranebay was discovered to be nonconforming at approximately 0643 hours on March 9, 1999. A second ENS update report was made to NRC at 1139 hours on March 9, 1999.

Compensatory measures were established upon identification of each of the four gate vulnerabilities. Review of alarm records did not identify uninvestigated alarms for these gates.

Cause Of The Event

The apparent causes for this event were inadequate gate design and inadequate procedures.

Information Notice 88-41, "Physical Protection Weaknesses Identified Through Regulatory Effectiveness Reviews" described deficiencies in gate design which could allow compromise. Plant design reviews and gate modifications performed in response to IN 88-41 were not adequate.

Test procedures were inadequate because they did not include requirements or methods to verify gate integrity by prescribing nondestructive attempts to subvert security systems. Current test procedures require security personnel to test the function of alarm systems associated with each gate, but do not include steps which could identify other gate vulnerabilities.

Maintenance procedures did not adequately identify potential degradation of vital area accesses and associated vulnerabilities. Security procedures that apply to the preventive maintenance of these gates did not address discovery of external wear that could provide the opportunity for compromise.

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Current preventive maintenance procedures discuss the possibility of the malfunction of mechanical components, but do not specifically address vulnerability to tampering.

Analysis Of The Event

Commencing at approximately 1400 hours March 8, 1999 and ending at approximately 0630 hours March 9, 1999, with Unit 1 and Unit 2 both in Mode 5, four vital area gates were identified which were nonconforming and vulnerable to possible compromise. The identified conditions constituted a failure, degradation or discovered vulnerability in a safeguard system that could allow unauthorized or undetected access to a protected area, material access area, controlled access area, vital area or transport for which compensatory measures have not been employed. This event was reportable as a safeguards event pursuant to the requirements of 10CFR73, Appendix G, paragraph I(c) and 10CFR73.71(b)(1) (1 hour ENS report). ENS reports were made to the NRC Operations Center at 1645 hours and 1838 hours on March 8, 1999 and at 1139 hours on March 9, 1999. This report is being made pursuant to the requirements of 10CFR73, Appendix G, paragraph I(c) and 10CFR73.71(d) (30 day report).

Follow-up investigations indicate that the vital areas secured by the four gates were not compromised. Therefore, there were no implications to the health and safety of the public as a result of this event.

CORRECTIVE ACTIONS

Upon identification of the nonconforming gates, compensatory measures were promptly implemented. Vital area access gates were inspected to investigate the extent of condition and determine whether similar vulnerabilities existed. Gate repairs/modifications are being made to eliminate identified nonconforming conditions. Compensatory measures will remain in place until the gates are returned to operable.

A new Operating Experience (OE) Program is being developed which will reside under the Regulatory Affairs Department. The ingredients of the program will include benchmarking from other utilities that have proven, effective OE programs and is intended to better utilize industry operating experience, including information notices.

Security vital area access test procedures will be revised to incorporate appropriate steps for non-destructive testing of security systems such as gates. Security preventive maintenance procedures will be revised to incorporate steps intended to identify and correct degradation of barriers which could lead to vulnerability to tampering. Follow-up investigations were performed to verify that vital areas secured by the four nonconforming gates were not compromised.

SIMILAR EVENTS

316/97-S001-00, "Control of Vital Area Lost Due to Personnel Error," November 10, 1997.

