AmerGen
An Exelon Company

Clinton Power Station
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Clinton, IL 61727

10 CFR 50.73
U-603797
December 19, 2006

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Subject: Licensee Event Report 2006-004-00

Enclosed is Licensee Event Report (LER) No. 2006-004-00: Inadequate Configuration Control Risk Assessment Causes Loss of Safety Function. This report is being submitted in accordance with the requirements of 10 CFR 50.73.

Should you have any questions concerning this report, please contact Mr. Ronald Frantz, Sr. Regulatory Specialist, at (217)-937-2813.

Respectfully,

Bryan Hanson
Site Vice President
Clinton Power Station

RSF/blf

Enclosures: Licensee Event Report 2006-004-00
Summary of Commitments

cc: Regional Administrator – NRC Region III
NRC Senior Resident Inspector – Clinton Power Station
Office of Nuclear Facility Safety – IEMA Division of Nuclear Safety

IE22

NRC FORM 366 (6-2004) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 06/30/2007

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose 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.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
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4. TITLE
Inadequate Configuration Control Risk Assessment Causes Loss of Safety Function

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
									None	05000
11	09	2006	2006	- 004 -	00	12	19	06	None	05000

9. OPERATING MODE
1

10. POWER LEVEL
95.5

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☐ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☒ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER (10 CFR 21)

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

NAME	TELEPHONE NUMBER (Include Area Code)
J. C. Wemlinger, Operations Specialist	(217) 937-3846

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

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

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On 11/9/06, operators received an alarm indicating the Division 3 shutdown service water system (SX) was not available and a status light for a loss of position indication for motor-operated valve 1SX014C, plant service water system to Division 3 shutdown service water system header isolation, indicating the valve was not available. Operators declared the Division 3 SX, high pressure core spray (single train safety system), and Division 3 emergency diesel generator systems inoperable and unavailable. Investigation identified a security officer on rounds bumped the circuit breaker hand switch for valve 1SX014C, moving it to the off position. The officer was carrying a protective mask in a large bag attached to the officer's thigh. When the officer passed the circuit breaker panel, the bag contacted the breaker hand switch and actuated it. The officer was unaware the bag had contacted the breaker. The cause of this event was Security Management failed to adequately assess the inadvertent contact configuration control risk when the requirement to carry the mask in a bag attached to the thigh was implemented in 2005. Corrective actions include designating the area where the event occurred as an exclusion area and providing security officers a different route to pass this equipment, and walking down the plant to identify safety-related equipment subject to inadvertent contact.

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

PLANT OPERATING CONDITIONS PRIOR TO THE EVENT

Unit: 1 Event Date: 11/9/06 Event Time: 0644 Central Standard Time

Mode: 1 (Power Operation) Reactor Power: 95.5 percent

DESCRIPTION OF EVENT

On November 9, 2006, at 0644 hours, with the unit at 95.5 percent power, operators in the Main Control Room (MCR) received an alarm [ALM] indicating the Division 3 shutdown service water system (SX) [BI] was not available. Operators also observed a status light [IL] for a loss of position indication for motor [MO]-operated valve [V] (MOV) 1SX014C, the plant service water system [KG] to Division 3 SX system header isolation valve, indicating that the MOV was not available.

At 0645 hours, in response to the MCR indications, the Control Room Supervisor (CRS) dispatched a non-licensed operator (NLO) to investigate the circuit breaker for the 1SX014C valve. The CRS also declared the Division 3 SX, high pressure core spray (HPCS) [BG], and Division 3 emergency diesel generator (DG) [EK] systems inoperable and unavailable since MOV 1SX014C is required to automatically close following a HPCS system initiation to isolate the non-safety loads from the safety loads in Division 3 during a loss of offsite power event. Operators entered the applicable Technical Specification action requirements including verifying within one hour that the reactor core isolation cooling system [BN] was operable.

At 0646 hours, operators directed Electrical Maintenance to investigate the breaker. At 0650 hours, the NLO reported to the MCR that the circuit breaker [52] hand switch [HS] was in the "off" position. At 0738 hours, Maintenance reported to the MCR that the circuit breaker for the MOV had not tripped, but was turned off via the breaker hand switch [HS] moving to the "off" position. No abnormal or unusual indications were noted in the circuit breaker cubicle. The valve was verified to be in the "open" position.

At 0742 hours, operators closed the circuit breaker without resetting the breaker logic and the indication for MOV 1SX014C returned to normal in the MCR, and the SX system unavailable alarm cleared. The circuit breaker remained in the "closed" position and operators declared the HPCS, Division 3 SX and Division 3 DG systems available.

At 0810 hours, Operations initiated a prompt investigation for this event and Plant Security performed a computer search, identifying that a security officer was in the area of the circuit breaker at the time of the MCR alarm.

At 1047 hours, operators completed Division 3 SX pump testing and verified the capability of MOV 1SX014C to stroke closed normally.

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

At 1142 hours, based on reviews of the circuit breaker condition, an engineering evaluation, stroking of the MOV, and identification of no discrepant circuit breaker condition, operators concluded that Division 3 SX, Division 3 DG, and HPCS systems were operable effective at 0742 hours when MOV 1SX014C was reenergized. Further, the Division 3 DG and HPCS systems were inoperable but available during this event from 0644 hours to 0742 hours. The Division 3 SX system was inoperable and unavailable from 0644 hours to 0742 hours.

Issue Report 555579 was initiated to perform a root cause evaluation of this event and identify corrective actions.

The investigation of this event identified that a security officer on shiftly security rounds bumped the circuit breaker hand switch for the 1SX014C MOV, moving it to the "off" position. The security officer was carrying a protective mask in a large bag attached to the officer's thigh. When the officer passed the circuit breaker panel, the bag contacted the breaker hand switch and actuated it. The officer was unaware that the bag had contacted the breaker.

No other inoperable equipment or components directly affected this event.

This event is reportable under the provisions of 10 CFR 50.73(a)(2)(v)(D) as a condition that could have prevented the fulfillment of the safety function needed to mitigate the consequences of an accident.

CAUSE OF EVENT

The root cause of the event was Security Management failed to adequately assess the inadvertent contact configuration control risk when the requirement to carry the protective mask in a bag attached to the thigh was implemented in 2005.

A contributing cause for this event was Plant Operations failed to communicate adequate information and expectations to the Plant Organization regarding configuration control inadvertent contact events and the level of detail needed to identify and mitigate these hazards.

SAFETY ANALYSIS

This event had minimal safety significance. From 0644 hours to 0742 hours during this event, the Division 3 DG and HPCS systems were inoperable, because the Division 3 SX system was not capable of providing essential service water to these systems; however, Division 3 DG and HPCS systems were available because the non-safety plant service water system was available to provide cooling water to these systems. The Division 3 SX system was inoperable and unavailable from 0644 hours to 0742 hours because the system was not capable of providing essential service water to the Division 3 DG and HPCS systems during that period as a result of the loss of power to MOV 1SX014C.

During this event, no loss of offsite power occurred and the non-safety plant service water system was available to provide cooling water for the HPCS and Division 3 DG systems to allow them to perform their safety function. The HPCS system is a single train safety system; however, other

systems were available to help mitigate the consequences of an event requiring initiation of the high pressure Emergency Core Cooling System (ECCS) during the 58-minute period that the Division 3 SX system was inoperable and unavailable. The motor driven reactor feed pump, RCIC system, automatic depressurization system, and low pressure ECCSs (upon reaching the low pressure permissive) were available to mitigate the consequences of an event requiring initiation of the high pressure ECCS system.

This event report describes a safety system functional failure of the HPCS system.

CORRECTIVE ACTION
The area where the inadvertent contact with the circuit breaker occurred in the Division 3 SX Pump Room has been designated as an exclusion area, and passage by personnel is no longer allowed. Security officers have been provided a different route to pass this equipment and this information was communicated to the officers.

Security Management and a Senior Reactor Operator performed a plant walk down of security officer tour paths to identify any safety-related equipment that is subject to inadvertent contact and identified additional inadvertent contact hazards that could affect safety-related equipment. The identified hazards have been captured in the corrective action program and will receive a disposition via that process.

Plant management walked down the entire plant for inadvertent contact hazards, and the hazards identified were captured in the corrective action program and will receive a disposition via that process.

Plant Operations will develop and implement a configuration control prevention program that emphasizes avoiding contact with components by recognizing the risk and obtaining an assessment and providing appropriate compensatory measures.

PREVIOUS OCCURRENCES
In 2004, a similar issue (not reportable) occurred when a security officer on rounds inadvertently snagged his belt on a disconnect switch for a 480-volt riser while passing it in a congested area, moving the switch to the "off" position. This issue was a configuration control event but had no other consequence. In response to this issue, Security walked down security plant tour routes and eliminated areas that had no valid need to be toured by Security and instructed patrols to stay on main travel paths when touring. Configuration control inadvertent contact hazards were not included in this walk down and the Screen House area where the SX circuit breaker event occurred was not toured because that area had pathways that were sufficient, based on equipment carried by patrols, to avoid inadvertent contact with panels. Additionally, the requirement for patrols to carry the mask attached to the thigh was not established until 2005, so the mask equipment was not a consideration at the time.

COMPONENT FAILURE DATA
None

SUMMARY OF COMMITMENTS
Clinton Power Station
U-603797

The following table identifies commitments made in this document. (Any other actions discussed in the submittal represent intended or planned actions. They are described to the NRC for the NRC's information and are not regulatory commitments.)

COMMITMENT	COMMITMENT TYPE	
	ONE-TIME ACTION (Yes/No)	Programmatic (Yes/No)
This document has no regulatory commitments		