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NLS2012113
November 1, 2012

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

Subject: Licensee Event Report No. 2012-003-00
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2012-003-00.

There are no new commitments contained in this letter.

Sincerely,

Brian J. O'Grady
Vice President Nuclear-
Chief Nuclear Officer

/jo

Attachment: Licensee Event Report 2012-003-00

cc: Regional Administrator w/attachment
USNRC - Region IV

Cooper Project Manager w/attachment
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/attachment
USNRC - CNS

SRAB Administrator w/attachment

NPG Distribution w/attachment

INPO Records Center w/attachment
via ICES entry

SORC Chairman w/attachment

CNS Records w/attachment

COOPER NUCLEAR STATION
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IE22
NRR

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 10/31/2013

Estimated burden per response to comply with this mandatory information collection request: 80 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Service Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@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

Reactor Building Doors Opened Simultaneously 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
										05000
09	10	2012	2012	- 003 -	00	11	01	2012	FACILITY NAME	DOCKET NUMBER
										05000

9. OPERATING MODE

1

10. POWER LEVEL

100

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

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
David W. Van Der Kamp, Licensing Manager	(402) 825-2904

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
A	NG	IEL	P370	YES					

14. SUPPLEMENTAL REPORT EXPECTED

☐ **YES** *(If yes, complete 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 September 10, 2012, both airlock doors to the Reactor Building were inadvertently opened simultaneously, breaching the secondary containment boundary.

Personnel were attempting to exit the Reactor Building through the inner personnel airlock while personnel were also entering the Reactor Building through the outer personnel airlock. This condition resulted in the two airlock doors being open simultaneously for approximately two minutes. As a result, an indication was received in the Control Room and Limiting Condition for Operation (LCO) 3.6.4.1, Condition A, was entered to restore secondary containment. An operator was dispatched to the airlock, reset the door interlocks; the doors were declared operable and LCO 3.6.4.1, Condition A, was exited.

Cooper Nuclear Station (CNS) determined the root cause to be previous reportability practices minimized the significance of having both airlock doors open which caused CNS to defer installing equipment that would have precluded this event. Interim corrective actions include establishing persons to serve as door monitors until an automated warning device or system is installed. To prevent recurrence of this event, a change in the reportability guidance has been adopted and new doors with a different interlock will be installed in Refueling Outage 28.

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17. NARRATIVE

PLANT STATUS

Cooper Nuclear Station (CNS) was in Mode 1, Power Operation, at 100 percent power at the time of the event on September 10, 2012.

BACKGROUND

Secondary containment serves as a barrier to confine and monitor potential releases during fuel handling operations and is a system that limits the release of radioactive materials to the environment and consists of four subsystems. One of these subsystems is the Reactor Building [EIIS: NG], which encloses the Reactor Pressure Vessel [EIIS: RPV] and Primary containment [EIIS: NH].

The Reactor Building is designed to provide protection for the engineered safeguards and nuclear safety systems located in the building from postulated environmental events.

Sets of sealed doors [EIIS: DR] (inner and outer doors) are provided for personnel and equipment access. One set of doors in each penetration [EIIS: PEN] is required to be closed to maintain secondary containment. In addition, the personnel access airlock doors are equipped with interlocks [EIIS: IEL] so that one door cannot be opened unless the second door is closed.

The interlocked door can be "by-passed" by actuating the Interlock Bypass Switch or by using the panic bar to open the adjacent inactive leaf.

Reactor Building personnel airlock doors R101 and R102 form part of the secondary containment boundary.

EVENT DESCRIPTION

On September 10, 2012, at 14:43, the inner and outer airlock doors (R101 and R102) to the Reactor Building were inadvertently opened simultaneously, breaching the secondary containment boundary.

Personnel were attempting to exit the Reactor Building through the inner personnel airlock while personnel were also entering the Reactor Building through the outer personnel airlock. This condition resulted in the two airlock doors being open simultaneously for approximately two minutes. Consequently, an indication was received in the Control Room and Limiting Condition for Operation (LCO) 3.6.4.1, Condition A, was entered to restore secondary containment. An operator was dispatched to the Reactor Building airlock to investigate the indication and subsequently reset the door interlocks.

At 14:51, the doors were declared operable and LCO 3.6.4.1, Condition A was exited.

Event Notification 48295 was made to the Nuclear Regulatory Commission.

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17. NARRATIVE

Justification existed in 2007 to replace the Reactor Building personnel airlock doors R101 and R102, noting in part that the interlock system was incapable of preventing simultaneous door opening causing entry into LCOs. Based upon this justification, new doors were procured and delivered; however, the priority given for installation was low and the doors remain in storage.

As part of the Root Cause Evaluation of this event, a similar instance was found to have occurred within the past three years. On April 16, 2012, a technician was entering the Reactor Building personnel airlock through the outer door. Another technician was exiting the Reactor Building through the inner door. The interlock failed and both personnel airlock doors were opened simultaneously. An operator was dispatched to the Reactor Building airlock and the doors were successfully closed. Secondary containment was declared inoperable during the time both doors were open.

BASIS FOR REPORT

The event is reportable as a loss of safety function under 10 CFR 50.73(a)(2)(v)(C and D) – An event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to control the release of radioactive material or mitigate the consequences of an accident.

SAFETY SIGNIFICANCE

This event is considered to have low safety significance. Having Reactor Building personnel airlock doors R101 and R102 open simultaneously does not have a direct or indirect impact on the frequency of core damage. Additionally, the short duration breach of secondary containment due to these doors being open simultaneously has a negligible impact on Large Early Release Frequency.

This event is considered a safety system functional failure.

CAUSE

CNS determined the root cause to be previous reportability practices minimized the significance of having both airlock doors open which caused CNS to defer installing equipment that would have precluded this event.

CORRECTIVE ACTION

Corrective actions have been established that include posting individuals to serve as door monitors until CNS assesses, recommends, and installs an automated warning device or system (non-human activated) that provides warning to persons about to use the airlock doors that the opposite door has already been opened.

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17. NARRATIVE

To prevent recurrence of this event, a change in the reportability guidance has been adopted and the doors with the different interlock system will be installed during Refueling Outage 28, scheduled for 2014.

PREVIOUS EVENTS

A review of CNS records revealed five different occurrences of the Reactor Building airlock doors being open simultaneously that meet the reporting criteria of 10 CFR 50.72 and 10 CFR 50.73; however, none of these events were reported. Specifically, these events occurred on: May 31, 2002; July 19, 2002; February 14, 2003; February 17, 2005; April 2, 2009.