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NLS2011022
February 28, 2011

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

Subject: Licensee Event Report No. 2010-005-00
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2010-005-00.

Sincerely,

Demetrius L. Willis
General Manager of Plant Operations

/bk

Attachment

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

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

Steam Exclusion Barrier Door Blocked Open Results in 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
11	09	2010	2010	- 005 -	00	02	28	2011	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

14. SUPPLEMENTAL REPORT EXPECTED

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

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
05	01	2011

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

On November 9, 2010, a steam exclusion barrier (SEB) door in the control room corridor at Cooper Nuclear Station (CNS) was blocked open with a ladder to facilitate preventive maintenance. With this SEB door obstructed, steam from a postulated high energy line break could propagate into the control room and affect operability of systems, structures, or components necessary to safely shut down, cool down, and maintain cold shutdown conditions of the plant. During the time frame the door was blocked open for the work evolution, there were no Technical Specification required actions taken and no compensatory measures implemented.

This event is currently under investigation. CNS will provide a supplement to this Licensee Event Report.

PLANT STATUS

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

BACKGROUND

A high energy line break (HELB) is a postulated design basis event outside of primary containment [EIIS: NH]. In the event of a postulated HELB, the plant is designed to ensure the capability to shut down the reactor and maintain it in a safe condition, and the capability to prevent or mitigate the consequences of accidents that could result in potential off-site exposures. Some boundary doors [EIIS: DR] at CNS are categorized, based on a HELB analysis, as providing a steam exclusion barrier (SEB). These doors are controlled to ensure safety-related equipment is protected from a harsh environment in the event of a postulated HELB.

SEB doors are designed and assumed to be closed to mitigate the effects of a postulated line break and provide a barrier function to prevent harsh environmental conditions from entering the adjacent area. With the exception of normal passage, SEB doors are maintained in a closed configuration during Modes 1, 2 and 3. These doors may be impaired in order to facilitate maintenance, system line-ups, system draining, etc., if the door is returned to its normal configuration when the activity is completed. Compensatory measures may be required in specific cases if a door is required to be left open or obstructed in support of maintenance.

Door H300 is located in the control room corridor at CNS. It is categorized as an SEB door, fire door, and control room envelope (CRE) boundary door.

EVENT DESCRIPTION

On November 9, 2010, CNS Door H300 was blocked open to facilitate preventive maintenance. A ladder was positioned in the travel path of the door to prevent it from closing. Door H300 is a fire door, CRE boundary, and SEB door. With Door H300 obstructed, steam from a postulated turbine building HELB (i.e., main steam line rupture) could propagate into the control room and affect operability of systems, structures, or components necessary to safely shut down, cool down, and maintain cold shutdown conditions of the plant. Additionally, operability of the control room envelope filtration system [EIIS: JH] was affected. During the time the door was blocked open for the work evolution, there were no compensatory measures implemented to protect equipment credited for safe shutdown in the event of a postulated HELB and no Technical Specification required actions were taken.

17. NARRATIVE

On December 28, 2010, this condition was identified by the Nuclear Regulatory Commission Senior Resident Inspector and discussed with CNS Operation's shift staff.

This event is currently under investigation. CNS will provide additional event details, the safety significance, root cause, corrective action(s) to prevent recurrence, and extent of condition in a supplement to this Licensee Event Report (LER).

BASIS FOR REPORT

CNS determined this event is reportable per the following 10 CFR 50.73 criteria as an LER due 60 days from the discovery date, December 28, 2010:

50.73(a)(2)(i)(B) – An operation or condition prohibited by Technical Specifications.

50.73(a)(2)(ii)(B) – An unanalyzed condition that significantly degraded plant safety.

50.73(a)(2)(v) – An event or condition that could have prevented fulfillment of the safety function of structures or systems that are needed to: (A) shut down the reactor and maintain it in a safe shutdown condition; (B) remove residual heat; (C) control the release of radioactive material; or (D) mitigate the consequences of an accident.

50.73(a)(2)(vii) – An event where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system designed to: (A) shut down the reactor and maintain it in a safe shutdown condition; (B) remove residual heat; (C) control the release of radioactive material; or (D) mitigate the consequences of an accident.

50.73(a)(2)(ix)(A) – Any event or condition that as a result of a single cause could have prevented the fulfillment of a safety function for two or more trains or channels in different systems that are needed to: (1) shut down the reactor and maintain it in a safe shutdown condition; (2) remove residual heat; (3) control the release of radioactive material; or (4) mitigate the consequences of an accident.

PREVIOUS EVENTS

LER 2010-004 – On August 19, 2010, an SEB door was propped open during planned maintenance on emergency diesel generator (EDG) [EIIS: DG] 2. If a postulated HELB were to occur in the turbine building, steam could have entered the EDG1 room through the propped open door. The EDG rooms were not analyzed for a HELB environment; therefore, the plant was in an unanalyzed condition with the SEB door propped open. Additionally, having both EDGs inoperable created a condition that could have prevented the fulfillment of the safety function of the EDGs. The root cause of the

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17. NARRATIVE

event was that impairment of the door for maintenance activities was evaluated using procedural guidance based upon a probabilistic risk assessment rather than performing an operability evaluation.

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©[4]

Correspondence Number: NLS2011022

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		