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NLS2012008
January 12, 2012

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

Subject: Licensee Event Report No. 2011-007-00
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2011-007-00.

Sincerely,

Demetrius L. Willis
General Manager of Plant Operations

/jo

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

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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)

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4. TITLE
Primary Containment Lost Safety Function due to Open Drywell Vacuum Breaker

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	22	2011	2011	- 007 -	00	01	12	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
				Y					

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 November 22, 2011, the top corner of a rolling podium that was being used during a surveillance at Cooper Nuclear Station (CNS) contacted the Master Control Switch for the Torus to Drywell Vacuum Breakers. The contact was sufficient to cause the switch to move from the normally closed position to the open position, causing one Torus to Drywell Vacuum Breaker to open. The Control Room operator performing the surveillance, along with a peer, recognized what had occurred and repositioned the Master Control Switch to the closed position, which returned the affected Torus to Drywell Vacuum Breaker to the normally closed position.

The Torus to Drywell Vacuum Breaker and Primary Containment were declared inoperable, and the appropriate Technical Specification for Limiting Condition of Operation (LCOs) were entered. After the Torus to Drywell Vacuum Breaker closed, the vacuum breaker and Primary Containment were declared operable and the LCOs were exited.

CNS identified the root cause to be the design of the rolling podium was deficient with respect to its use in the Control Room. The rolling podium has been removed from the Control Room. To prevent recurrence of this event, the rolling podium will be replaced with one designed such that it cannot contact the switches and instrumentation.

This event has low safety significance.

PLANT STATUS

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

BACKGROUND

The function of the Torus to Drywell Vacuum Breaker [EIIS:VACB] is to relieve vacuum in the drywell. There are 12 internal vacuum breakers which allow air and steam flow from the suppression chamber (torus) to the drywell when the drywell is at a negative pressure. Torus to Drywell Vacuum breakers prevent an excessive negative differential pressure across the drywell boundary. Each vacuum breaker is a self-actuating valve [EIIS:V], similar to a check valve, which can be remotely operated for testing purposes.

A negative differential pressure across the drywell wall is caused by rapid depressurization of the drywell. Design Bases Accident (DBA) analyses assume the vacuum breakers to be closed initially and to remain closed and leak tight, until the suppression pool is at a positive pressure relative to the drywell. The requirement that the vacuum breakers be closed ensures that there is no excessive bypass leakage should a Loss of Coolant Accident (LOCA) occur.

The function of the primary containment [EIIS:NH] is to isolate and contain fission products released from the Reactor Primary System following a design basis LOCA and to confine the postulated release of radioactive material. The safety design basis for the primary containment is that it must withstand the pressures and temperatures of the limiting DBA without exceeding the design leakage rate. The leakage from the drywell to the suppression chamber must be limited to ensure the pressure suppression function is accomplished and the suppression chamber pressure does not exceed design limits.

The vacuum breaker has a safety function in the closed position to limit the amount of bypass flow to ensure proper containment response on a postulated LOCA event and an open safety function post LOCA to limit negative differential pressure between the drywell and the suppression chamber. With the valve partially open, the LOCA containment response cannot be assured.

EVENT DESCRIPTION

On November 22, 2011, during performance of surveillance 6.2REC.101, the Master Control Switch (PC-SW-CSVB) for the 12 Torus to Drywell Vacuum Breakers was inadvertently bumped.

While performing the surveillance, a rolling podium was moved in front of panel VBD-J to allow the Control Room operator to perform a manipulation on panel VBD-M. While moving the rolling podium, the top corner of the podium inadvertently came into contact with the Master Control Switch for the Torus to Drywell Vacuum Breakers. Contact between the rolling podium and the Master Control Switch was sufficient to cause the switch, normally in the closed position, to move to the open position. Consequently, an alarm was received indicating one

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17. NARRATIVE

(PC-AO-NRV27) of the 12 Torus to Drywell Vacuum Breakers was at least partially open. This open indication was likely the result of residual pressurized air in the test actuator and associated instrument air line which was sufficient to move the valve test actuator and reposition the vacuum breaker off the contact points that operate the indicator light.

The Control Room operator, along with a peer, observed that the rolling podium contacted the Master Control Switch and repositioned the Master Control Switch to its normally closed position, closing PC-AO-NRV27. PC-AO-NRV27 was open approximately 5 seconds.

The Control Room Supervisor declared the Torus to Drywell Vacuum Breaker inoperable at 1353 hours and entered Technical Specification Limiting Condition of Operation (LCO) 3.6.1.8, Condition B, Required Action B.1, which requires the valve to be closed within 12 hours. Concurrently, Primary Containment was declared inoperable and LCO 3.6.1.1, Condition A, Action A.1, was entered, which requires restoration of Primary Containment within 1 hour. After the Torus to Drywell Vacuum Breaker was closed, the Control Room Supervisor declared the Torus to Drywell Vacuum Breaker and Primary Containment operable and exited LCO 3.6.1.8 and 3.6.1.1, respectively.

The rolling podium has an upper platform that is used to place documents during the performance of work evolutions. The rolling podium is designed such that the bottom base platform and the upper platform could contact a vertical surface simultaneously. The Master Control Switch protrudes from the control panel. The rolling podium had been previously adjusted to a height that is the same elevation as the Master Control Switch.

The rolling podium did not meet the requirements of CNS' Seismic Housekeeping procedure. For compliance with this procedure, the rolling podium must be a "tended" item (i.e., a temporary item needed to support on-going work) or stowed no closer than 4 feet from any electrical control panel in the Control Room with the wheels in the locked position. Operations personnel confirmed that the rolling podium has been stowed in the Control Room when not "tended" and has been stowed within 4 feet from the electrical control panels. Therefore, it was incorrectly presumed that the rolling podium complied with the Seismic Housekeeping procedure. Compliance with the procedure was not questioned until the inadvertent bump of the Master Control Switch caused an unplanned LCO.

The podium was removed from the Control Room on November 30, 2011.

BASIS FOR REPORT

CNS is reporting this event as a condition which could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident, per 10 CFR 50.73(a)(2)(v)(D), due to the function of Primary Containment being potentially degraded. CNS also reported this event per Event Notification 47471.

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17. NARRATIVE

SAFETY SIGNIFICANCE

The safety significance associated with this condition is low due to the short duration the Torus to Drywell Vacuum Breaker was open. The potential impact of this condition is limited to LOCAs located in containment. The probability of a LOCA occurring during the approximate 5 second interval of time the Torus to Drywell Vacuum Breaker Master Control Switch was positioned to open is considered negligible. Therefore, it is concluded that this condition had low safety significance.

CAUSE

CNS determined the root cause of this event is the design of the rolling podium was deficient with respect to its use in the Control Room.

CORRECTIVE ACTION

To prevent recurrence of this event, the rolling podium will be replaced with one designed such that it cannot contact the switches and instrumentation.

PREVIOUS EVENTS

A previous similar event involving the inadvertent contact of a switch in the Control Room occurred on August 27, 2011. A Gaitronics handset was dropped and contacted the "A" side Automatic Depressurization System (ADS) inhibit switch. This contact was sufficient to move the switch from the AUTO position to the INHIBIT position. The Control Room Supervisor was immediately informed and direction was given to place the switch back to AUTO. The "B" side of the ADS remained operable thus maintaining safety function of the ADS.

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS©[4]

Correspondence Number: NLS2012008

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		