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NLS2016065
November 9, 2016

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

Subject: Licensee Event Report No. 2016-003-00
Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2016-003-00.

There are no new commitments contained in this letter.

Sincerely,

For Oscar A. Limpias
Vice President Nuclear-
Chief Nuclear Officer

/jo

Attachment: Licensee Event Report 2016-003-00

cc: Regional Administrator w/attachment
USNRC - Region IV

Cooper Project Manager w/attachment
USNRC - NRR Plant Licensing Branch IV-2

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

IE22
NRR

COOPER NUCLEAR STATION
P.O. Box 98 / Brownville, NE 68321-0098
***Telephone:** (402) 825-3811 / **Fax:** (402) 825-5211*
www.nppd.com

NRC FORM 366 (11-2015) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2018

LICENSEE EVENT REPORT (LER)

(See Page 2 for required number of digits/characters for each block)

(See NUREG-1022, R 3 for instruction and guidance for completing this form http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Cooper Nuclear Station	05000298	1 of 4

4. TITLE

Scaffold Construction Places Plant in a Condition Prohibited by Technical Specifications

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 05000
09	14	2016	2016	003 -	00	11	09	2016	FACILITY NAME	DOCKET 05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: *(Check all that apply)*			
1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)	☐ 50.73(a)(2)(ix)(A)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
10. POWER LEVEL	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
089	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(C)	☐ 73.77(a)(1)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(D)	☐ 73.77(a)(2)(i)
	☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(vii)	☐ 73.77(a)(2)(ii)
		☐ 50.73(a)(2)(i)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A	

12. LICENSEE CONTACT FOR THIS LER

LICENSEE CONTACT	TELEPHONE NUMBER *(Include Area Code)*
Jim Shaw, Licensing Manager	(402) 825-2788

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
B				Y						

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO				

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

On September 14, 2016, during testing of the Reactor Recirculation Motor Generator Ventilation Air Operated Isolation Valves (AOV), HV-AOV-265 failed to close as required by Technical Specifications. Operations declared HV-AOV-265 inoperable and entered Limiting Condition for Operation (LCO) 3.6.4.2, Condition A, and commenced preparations to transition the plant to single loop operation, including reducing the plant to approximately 50 percent power. Upon investigation, it was discovered that the air supply line to the valve was pinched between the valve actuator and a scaffold that was erected to support work on a nearby component. After modifying the scaffold and replacing the pinched airline, the valve was tested satisfactorily and Operations exited the LCO and activities to prepare for transition to single loop operation were terminated.

The root cause of the event is that personnel involved in the planning, construction, and inspection of the scaffold built for a nearby component were not aware of the unique external movement path of the valve actuator. To prevent recurrence, the procedure will be revised to include specific guidance for the planning, building and inspection of scaffolds in the vicinity of HV-AOV-265 and other AOVs having actuators of similar design. Signage has been installed to warn personnel of the external movement of these AOVs.

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

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1. FACILITY NAME	2. DOCKET NUMBER	3. LER NUMBER		
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Cooper Nuclear Station	05000- 298	2016	- 003	- 00

NARRATIVE

PLANT STATUS

Cooper Nuclear Station was in Mode 1, Power Operation, at 89 percent power, approaching the end of Cycle 29 in two-loop operation, at the time the condition was identified.

BACKGROUND

The safety objective of the Secondary Containment system [EIIS:NG] in conjunction with other engineering safeguards and nuclear safety systems is to limit the release to the environs of radioactive material so that off-site doses from a postulated design basis accident will be below the values permitted.

The reactor building isolation and control system serves to trip the reactor building [EIIS:NG] supply and exhaust fans [EIIS:FAN], isolate the normal ventilation system and provide the starting signals for the Standby Gas Treatment (SGT) [EIIS:BH] system in the event of a postulated Loss of Coolant Accident inside the drywell [EIIS:NG] or the postulated fuel handling accident in the reactor building.

Two normally open dampers [EIIS:DMP], in series, are provided both in the supply path and two exhaust paths for the reactor building and the two supply and exhaust paths for Reactor Recirculation Motor Generator (RRMG) set ventilation. Each set of dampers consists of one air actuated damper, supplied by instrument air backed up by an accumulator [EIIS:ACC] with an assured one-hour supply capacity, and a motor operated damper. These dampers ensure redundant, diverse isolation capability for the reactor building in the event of a release of radioactive material to the reactor building. These dampers close automatically on a Group 6 (Secondary Containment Isolation) isolation signal.

HV-AOV-265 is the RRMG Ventilation Supply Outboard Isolation Valve for RRMG 1B. This air operated valve (AOV) is normally open during plant operation. In addition to driving the actuator shaft, the air actuator cylinder physically rotates when the valve is opened or closed. This results in a large actuator movement path that includes the actuator shaft, cylinder, valve disc arm, and the airlines that connect to the cylinder.

EVENT DESCRIPTION

On September 14, 2016, during testing of the Reactor Recirculation Motor Generator Ventilation Air Operated Isolation Valves, the control switch for HV-AOV-265 was taken to close for valve stroke timing. The valve failed to close. HV-AOV-265 was declared inoperable and Technical Specification (TS) Limiting Condition for Operation (LCO) 3.6.4.2, Condition A, Required Action A.1, "Isolate the affected penetration flow path by use of at least one closed and de-activated valve within 8 hours," was entered. In addition, Operations commenced preparations for transitioning the plant to single loop operation, including reducing power to approximately 50 percent to support removing the associated RRMG set from service.

Operations attempted to close HV-AOV-265 while an Engineer was stationed locally to observe the valve's operation. The Engineer identified that during the attempt to close the valve, the air supply line became pinched between the moving cylinder of the valve actuator and a scaffold that had been erected on June 29, 2016, to support work on a different valve.

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NARRATIVE

As such, air was restricted from exhausting from the air cylinder, pneumatically locking the piston and preventing the valve from closing. Further investigation revealed that the airline had been crimped and required replacement.

After modifying the scaffold to remove the interference with the operation of the valve, the airline for HV-AO-265 was replaced and the valve stroke testing was re-performed satisfactorily. HV-AO-265 was declared operable and TS LCO 3.6.4.2 was exited. Upon exiting the LCO, activities to prepare for transition to single loop operation were terminated.

BASIS FOR REPORT

This condition is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by TS because the scaffolding, installed in June 2016, was in a position to block the movement of the valve since that time.

SAFETY SIGNIFICANCE

The safety significance of this event is low. Secondary Containment AOV, HV-AO-265, could not be fully closed; however, the redundant motor operated valve in the RRMG B ventilation inlet flow path, HV-MO-264, provided the required safety function for Secondary Containment isolation. This event did not cause an impact to the safety of the general public, nuclear safety, industrial safety, or radiological safety.

CAUSE

The root cause of the event was determined to be that the personnel involved in the planning, construction, and inspection of the scaffold built for HV-MOV-264 were not aware of the external movement path of HV-AOV-265 actuator.

CORRECTIVE ACTIONS

Revise Maintenance Procedure 7.0.7, "Scaffolding Construction and Control," to include specific guidance for the planning, building and inspection of scaffolds in the vicinity of the AOVs listed below:

PC-AO-236AV	HV-AO-257AV	HV-AO-263AV	HV-AO-265AV
HV-AO-267AV			

Installed signs in the areas near the AOVs listed below to warn personnel of the external movement of these AOVs:

HV-AO-257AV	HV-AO-259AV	HV-AO-261AV	HV-AO-263AV
HV-AO-265AV	HV-AO-267AV	HV-AO-269AV	HV-AO-271AV
HV-AO-FCV1045A	HV-AO-FCV1045B	HV-AO-FCV1046	HV-AO-FCV1047
PC-AO-234AV	PC-AO-236AV		

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NARRATIVE

PREVIOUS EVENTS

There have been no events reported in the last three years related to scaffold construction impacting the ability of components to perform their safety function.