

Nebraska Public Power District

Always there when you need us

NLS2015122 November 5, 2015

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

Subject: Licensee Event Report No. 2015-003-01 Cooper Nuclear Station, Docket No. 50-298, DPR-46

Dear Sir or Madam:

The purpose of this correspondence is to forward Licensee Event Report 2015-003-01.

There are no new commitments contained in this letter.

Sincerely. Öscar A. Limpias

Vice President Nuclear-Chief Nuclear Officer

/jo

Attachment: Licensee Event Report 2015-003-01

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

00

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

Exercise in the second se	NRC FC	DRM 36	6	U.S.	NUCLË	AR REGULA	TORY CO	OMMISS		PPRO	VE	D BY OMB: NO.	3150-0104	EX	PIRE	5: 01/3	1/2017
1. FACILITY NAME 2. DOCKET NUMBER 3. PAGE Cooper Nuclear Station 05000298 1 of 3 4. TITLE Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability 5. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED 5. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED DOCKET NUMBER 05000 05 30 2015 2015 003 - 01 11 05 2015 FACILITY NAME DOCKET NUMBER 05000 1 050 50.73(k)(2)(ki) 0000 1 0.50 30 2015 003 - 01 11 05 2015 FACILITY NAME DOCKET NUMBER 05000 1 0.50 50.73(k)(2)(ki) 1 0.50 30 2015 003 - 01 11 05 05073(k)(2)(ki) 1 0.50 050.73(k)(2)(ki) 1 0.50 0.73(k)(2)(ki) 1 0.50 0.73(k)(2)(ki) 1 0.73(k)(2)(ki) 1 0.73(k)(2)(ki) 1 0.73(k)(2)(ki) 1 0.73(k)(2)(ki) 1 0.73(k)(2)(ki) 1 0.73(k)(2)(ki)	(02-2014) LICENSEE EVENT REPORT (LER) (See Page 2 for required number of digits/characters for each block)									Expires: 01/31/2017 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 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.							
Cooper Nuclear Station 0500028 1 of 3 4. TITLE Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability 6. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED 5. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED DOCKET NUMBER 0500 05 30 2015 2015 OOG DOCKET NUMBER 9. OPERATING MODE 11 105 2015 50.73(n(2)(0)(C) 26.074(n(2)(0)(A)	1. FACI	1. FACILITY NAME										ET NUMBER		3. PAGE			
A TITLE Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability S. EVENT DATE 6. LEN NUMBER 7. REPORT DATE 6. LEN NUMBER 7. REPORT DATE 6. CEN NUMBER 7. REPORT DATE 6. CEN NUMBER 7. REPORT DATE 6. CONTRET FACILITY NAME DOCKET NUMBER DOCKET NUMBER 06 90 2015 20120(0)(A) 2012020(0)(A) 201200(A) 201200(A)	Coc	per N	uclear St	ation								05000208			1 ~	F3	
Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability S. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED S. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITY NAME DOCKET NUMBER 05000 J 9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check with the apply) 4 20.2201(b) 20.2203(a)(3)(b) 60.73(a)(2)(iii) 9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check with the apply) 4 20.2203(a)(2)(i) 60.73(a)(2)(iii) 0 4 20.2203(a)(2)(i) 60.73(a)(2)(iii) 0 0 4 20.2203(a)(2)(i) 60.73(a)(2)(ii) 0 0 0 0.2203(a)(2)(i) 60.73(a)(2)(ii) 0 0 0		4. TITLE															
S. EVENT DATE 6. LER NUMBER 7. REPORT DATE 8. OTHER FACILITIES INVOLVED MONTH DAY YEAR SEQUENTIAL REV MONTH DAY YEAR DOCKET NUMBER 05 30 2015 2015 - 003 - 01 11 05 2015 DOCKET NUMBER DOCKET NUMBER 0 20.2201(b) 20.2203(a)(3)() DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) 4 20.2203(a)(2)(A) 20.2203(a)(3)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) 20.2203(a)(2)(A) 20.2203(a)(2)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) 20.2203(a)(2)(A) DO.2203(a)(2)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) 20.2203(a)(2)(A) DO.2203(a)(2)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73(a)(2)(V)(A) DO.73	Fail	Failure of Main Steam Isolation Limit Switches Results in a Condition Prohibited by Technical Specifications and Also a Common Cause Inoperability															
MONTH DAY YEAR YEAR SEGUENTIAL NUMBER NO. MONTH DAY YEAR FACILITY NAME DOCKET NUMBER 05000 05 30 2015 2015 003 - 01 11 05 2016 FACILITY NAME DOCKET NUMBER 05000 9. OPERATING MODE 11 THIS REPORT SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR S: (Check all that apply) 4 20.2203(a)(1) 20.2203(a)(3)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 20.2203(a)(2)(1) 20.2203(a)(3)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 10.2203(a)(2)(1) 20.2203(a)(2)(1) 60.38(c)(1)(0)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 10.2203(a)(2)(0) 10.38(c)(1)(0)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 10.2203(a)(2)(0) 10.38(c)(1)(0)(1) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 73.71(a)(5) 10.000 20.2203(a)(2)(0) 50.73(a)(2)(0)(1) 50.73(a)(2)(0)(1) 73.71(a)(5) 10.20122302(a)(2)(0) 10.2202303(a)(2)(0) 50.73(a)(2)(0)(1) 73.71(a)(5)	5. E	VENT	DATE	6. 1		IBER	7.	REPOR	T DATE	<u> </u>	_	8. 0	THER FACIL	ITIES INVO)	
Instrum DAT LAK NUMBER No. INVITUDE PEAK	MONTH	DAY	VEAD	VEAD	SEQUEN	ITIAL REV	MONITH	DAV		FA	CI	LITY NAME			DOC	KET	NUMBER
05 30 2015 003-01 11 05 2015 9. OPERATING MODE 11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUEREMENTS OF 10 CFR §; (Chack all that apply) 4 20.2201(b) 20.2203(a)(3)(b) 50.73(a)(2)(0)(C) 50.73(a)(2)(0)(A) 4 20.2201(a) 20.2203(a)(3)(b) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(B) 20.2203(a)(2)(0) 50.36(c)(1)(0)(A) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(B) 20.2203(a)(2)(0) 50.36(c)(1)(0)(A) 50.73(a)(2)(0)(B) 50.73(a)(2)(0) 50.73(a)(2)(0) 10. POWER LEVEL 20.2203(a)(2)(0) 50.36(c)(2) 60.73(a)(2)(0)(A) 73.71(a)(4) 20.2203(a)(2)(0) 20.2203(a)(2)(0) 50.73(a)(2)(0)(A) 73.71(a)(4) 20.2203(a)(2)(0) 20.2203(a)(2)(0) 50.73(a)(2)(0)(B) 50.73(a)(2)(0)(A) 73.71(a)(A) 73.71(a)(A) 000 12.1CENSEE CONTACT FOR THIS LER TELEPHONE NUMER (made Area Code) (40.2) 25.2788 13. COMPLETE ONE LINE FOR EACH COMPONENT FALURE DESCRIBED IN THIS REPORT INCENSEE TELEPHONE NUMER (made Area Code) <td< td=""><td></td><td></td><td>TEAK</td><td></td><td>NUMB</td><td>ER NO.</td><td></td><td>DAY</td><td></td><td>FA</td><td></td><td></td><td></td><td></td><td>050 DOC</td><td>00 Ket I</td><td>NUMBER</td></td<>			TEAK		NUMB	ER NO.		DAY		FA					050 DOC	00 Ket I	NUMBER
3. OPERATING MODE 1. THIS REPORT IS SUBMITED PURSUART TO THE REQUIREMENTS OF CRY § (<i>Labex an that appy</i>) 4 20.2201(b) 20.2203(a)(3)(b) 50.73(a)(2)(0)(C) § 50.73(a)(2)(W)(A) 6 20.2201(a) 20.2203(a)(3)(b) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(A) 20.2203(a)(2)(b) 20.2203(a)(3)(b) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 20.2203(a)(2)(b) 50.36(c)(1)(VA) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 20.2203(a)(2)(W) 50.36(c)(1)(VA) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 50.73(a)(2)(W)(A) 000 20.2203(a)(2)(W) 50.36(c)(1)(VA) 50.73(a)(2)(W)(B) 73.71(a)(5) 000 20.2203(a)(2)(W) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(C) 20.737(a)(2)(W)(A) 10.202203(a)(2)(W) 20.2203(a)(2)(W) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(C) 20.727(a)(B) 000 20.2203(a)(2)(W) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(C) 20.727(a)(B) 73.71(a)(5) 000 20.2203(a)(2)(W) 50.73(a)(2)(W)(B) 50.73(a)(2)(W)(C) 20.727(a)(B) 73.71(a)(E) 10.10000000000000000000000000000000	05	30	2015	2015	- 003	- 01	11	05	2015	5				(Ot 1 1	050	00	
4 20.2201(d) 20.2203(a)(1) 50.73(a)(2)(II)(A) 50.73(a)(2)(II)(A) 4 20.2203(a)(1) 20.2203(a)(2)(II) 50.37(a)(2)(II)(B) 50.73(a)(2)(II)(A) 20.2203(a)(2)(II) 50.36(c)(1)(I)(A) 50.73(a)(2)(II)(B) 50.73(a)(2)(II)(A) 20.2203(a)(2)(II) 50.36(c)(1)(I)(A) 50.73(a)(2)(II)(A) 50.73(a)(2)(II)(A) 10. POWER LEVEL 20.2203(a)(2)(III) 50.36(c)(1)(I)(A) 50.73(a)(2)(II)(A) 50.73(a)(2)(II)(A) 10. 20.2203(a)(2)(III) 50.36(c)(1)(I)(A) 50.73(a)(2)(II)(A) 50.73(a)(2)(II)(A) 50.73(a)(2)(II)(A) 10. 20.2203(a)(2)(III) 50.36(c)(1)(III)(A) 50.73(a)(2)(III)(B) 50.73(a)(2)(III)(A) 50.73(a)(2)(III)(A) 000 20.2203(a)(2)(III) 50.73(a)(2)(III)(B) 50.73(a)(2)(III)(B) 50.73(a)(2)(III)(B) 50.73(a)(2)(III)(B) 10. EXEMPTION FUNCTION TO THE CONTACT FOR THIS LER TELEPHONE NUMER (Indude Area Code) IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	9. 00		IG MODE		2201(h)	RT IS SUBN		0.2202/			E			Check all	that a	appiy)	
4 202203(a)(1) 202203(a)(2)(1) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 20.2203(a)(2)(1) 50.2023(a)(2)(1) 50.36(c)(1)(1)(A) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 20.2203(a)(2)(1) 50.36(c)(1)(1)(A) 50.73(a)(2)(1)(A) 50.73(a)(2)(1)(A) 50.73(a)(2)(1)(A) 10. POWER LEVEL 20.2203(a)(2)(1) 50.36(c)(1)(1)(A) 50.73(a)(2)(1)(A) 50.73(a)(2)(1)(A) 000 20.2203(a)(2)(1) 50.36(c)(1)(1)(A) 50.73(a)(2)(1)(B) 73.71(a)(A) 20.2203(a)(2)(1) 50.46(a)(3)(1) 50.73(a)(2)(1)(B) 73.71(a)(A) 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 73.71(a)(A) 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 73.71(a)(A) 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 73.71(a)(A) 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 50.73(a)(2)(1)(B) 73.71(a)(A) 10.001 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 73.71(a)(A) 10.001 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 73.71(a)(A) 10.001 20.2203(a)(2)(1) 50.73(a)(2)(1)(B) 73.71(a)(A) 10.001 10.201					2201(D)			0.2203(8	a)(3)(1)			50.73(a)(× 50.7	3(a)(2)(VII)	(4)
□ 0.0.2203(a)(2)(0) □ 0.0.2303(a)(2)(0) □ 0.0.73(a)(2)(0) □ 0.0.73(a)(2)(0) 10. POWER LEVEL □ 0.0.2203(a)(2)(0) □ 0.0.36(c)(1)(0)(A) □ 0.0.73(a)(2)(0)(A) 10. POWER LEVEL □ 0.0.2203(a)(2)(0) □ 0.0.36(c)(2) □ 0.0.73(a)(2)(0)(A) □ 0.73(a)(2)(0)(A) 000 □ 0.0.2203(a)(2)(0) □ 0.0.48(a)(3)(0) □ 0.0.73(a)(2)(0)(A) □ 0.73(a)(2)(0)(A) 000 □ 0.0.2203(a)(2)(0) □ 0.0.48(a)(3)(0) □ 0.0.73(a)(2)(0)(B) □ 7.71(a)(5) 000 □ 0.0.203(a)(2)(0) □ 0.0.73(a)(2)(0)(B) □ 50.73(a)(2)(0)(D) Specify in Abstract balow or in Apric Fam about or in Apr		4		\square 20.	$\frac{2201(a)}{2202(a)/1}$	1		0.2203(8	$\frac{1}{3}(3)(11)$			50.73(a)(2	2)(II)(A)	50.7	3(a)(2)(VIII)	(A) (B)
□ 0.02203(a)(2)(ii) □ 0.033(a)(2)(i)(i)(A) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(A) 10. POWER LEVEL □ 0.02203(a)(2)(ii) □ 0.036(c)(1)(i)(A) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(A) 10. POWER LEVEL □ 0.02203(a)(2)(ii) □ 0.036(c)(2) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(A) □ 0.02203(a)(2)(ii) □ 0.036(c)(2)(i) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(A) □ 0.02203(a)(2)(ii) □ 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(C) ☑ Ø 0.073(a)(2)(i)(A) □ 0.073(a)(2)(i)(C) ☑ Ø					2203(a)(1			0.2203(0	4)(4) 1)(i)(A)			$\Box 50.73(a)(a)$		50.7	3(a)(2)(VIII) 2)(iv)(
10. POWER LEVEL 20.2203(a)(2)(ii) 50.33(c)(2) 50.73(a)(2)(V)(A) 73.71(a)(3) 10. POWER LEVEL 20.2203(a)(2)(ii) 50.33(c)(2)(V)(A) 50.73(a)(2)(V)(B) 73.71(a)(3) 10. POWER LEVEL 20.2203(a)(2)(ii) 50.73(a)(2)(V)(B) 73.71(a)(3) 12. U2203(a)(2)(V) 50.73(a)(2)(V)(B) 50.73(a)(2)(V)(D) Specify in Abitract below or in NEC Form 386A TELEPHONE NUMER (include Area Code) (402) 825-2788 TO EPIX CAUSE SYSTEM COMPONENT FAILURE DESCRIBED IN THIS REPORT ACAUSE SYSTEM COMPONENT FAILURE DESCRIBED IN THIS REPORT B SB 3.3 NO7 IS EXPECTED MANU- FACTURER TELEPHONE NUMER (include Area Code) (402) 825-2788 TO EPIX CAUSE SYSTEM COMPONENT MANU- FACTURER TO EPIX TO EPIX					2203(a)(2	· <u>/()</u> //ii)		0.30(c)(<u>1)(i)(Δ)</u>			50.73(a)(2	$\frac{2}{(h)}$	50.7	3(a)(<u></u>
Image: Second (A) (I) Image: Second (A) (A) Image: Second (A) (A) Image: Second (A) 000 Image: Second (A)	10. P	OWER	LEVEL					0.36(c)(c)	<u>י אייארי</u> 2)		_	\Box 50.73(a)($\frac{-\chi(\mathbf{v})(\mathbf{x})}{2\chi(\mathbf{x})(\mathbf{x})}$		J(a)(<u> </u>	_
000 □ 0317040/01 □ 0317040/01 □ 0317040/01 □ 0317040/01 □ 202203(a)(2)(v) □ 0317040/2)(1)(A) □ 0317040/2)(1)(A) □ 0317040/2)(1)(A) □ 0317040/2)(1)(A) □ 202203(a)(2)(v) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(C) □ 0317040/2)(1)(A) □ 02203(a)(2)(v) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(C) □ 0317040/2)(1)(A) □ 02203(a)(2)(v) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0203(a)(2)(v) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0317040/2)(1)(B) □ 0203(a)(2)(v) □ 0317040/2)(1)(B) □ 0317040/2)(0.00(0)(1)	<u>-7</u> 3)(ii)		_	\Box 50.73(a)(2	2)(v)(B)	\Box 73.71(a)(4)			
Image: Second Applete Contract Image: Second Applete Contrapplete Contrapplete Contract Image: Seco		000						\Box 50.73(a)(2)(i)(A			-	$\Box 50.73(a)(2)(v)(C)$				5)	I
Instruction				\Box 20 2203(a)(2)(v)				50.73(a)(2)(i)(R)			_	$\Box 50.73(a)(2)(v)(D)$		Specify in Abstract below or		t below or in	
ILLEPHONE NUMBER (Include Area Code) (402) 825-2788 TELEPHONE NUMBER (Include Area Code) (402) 825-2788 ISCOMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT CAUSE SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 NO SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 NO SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 NO SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 NO DIVENTER ILLEPHONE NUMER (Include Area Code) (402) 825-2788 ILLEPHONE NUMER (Include Area Code) (402) 825-2788 INTHIS REPORT B SB 33 NO DIVENTER <	<u> </u>					12		EF CON			'HIS	SIFR		NF	RC For	n 366A	
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT CAUSE SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 N007 CAUSE SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 N007 Image: The transmission of the transmissin transmissin transmissin trequirements. Manument t	LICENSEE	LICENSEE CONTACT Jim Shaw, Licensing Manager (402) 825-2788															
CAUSE SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX CAUSE SYSTEM COMPONENT MANU- FACTURER REPORTABLE TO EPIX B SB 33 N007 Image: System COMPONENT MANU- FACTURER REPORTABLE TO EPIX Image: System COMPONENT MANU- FACTURER REPORTABLE TO EPIX 14. SUPPLEMENTAL REPORT EXPECTED Image: System 15. EXPECTED SUBMISSION DATE Image: System MONTH DAY YEAR 14. SUPPLEMENTAL REPORT EXPECTED VES (if yes, complete 15. EXPECTED SUBMISSION DATE) Image: System MONTH DAY YEAR 2 YES (if yes, complete 15. EXPECTED SUBMISSION DATE) Image: System No DATE MONTH DAY YEAR ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) Image: System Image: System MONTH DAY YEAR In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVS), inboard MSIV C Factor and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the a				<u>13. COM</u>	PLETE C	DNE LINE FO	R EACH	COMPO	DNENT	FAILL	JRI	E DESCRIBED	IN THIS REP	ORT			
B SB 33 N007 Image: the state of the state o	CAUS	SE	SYSTEM	СОМ	PONENT	MANU- FACTURER	REPOR TO E	TABLE	CAUSE			SYSTEM	COMPONENT	MANU FACTUR	- ER	REP T	ORTABLE DEPIX
14. SUPPLEMENTAL REPORT EXPECTED 15. EXPECTED MONTH DAY YEAR YES (If yes, complete 15. EXPECTED SUBMISSION DATE) No SUBMISSION DATE MONTH DAY YEAR ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVs), inboard MSIV C failed to actuate its associated Reactor Protection System (RPS) relay. The limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. In May 2015, during Quarterly Surveillance Testing on the MSIVs, the inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches. The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on Jul	в		SB		33	N007											
YES (If yes, complete 15. EXPECTED SUBMISSION DATE) No SUBMISSION DATE ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVs), inboard MSIV C failed to actuate its associated Reactor Protection System (RPS) relay. The limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. In May 2015, during Quarterly Surveillance Testing on the MSIVs, the inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches. The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on July 31, 2015.	14. SUPPLEMENTAL REPORT EXPECTED					L			15. EXPECTED			PECTED	MONTH	DA	y T	YEAR	
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVs), inboard MSIV C failed to actuate its associated Reactor Protection System (RPS) relay. The limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. In May 2015, during Quarterly Surveillance Testing on the MSIVs, the inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches. The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on July 31, 2015.	VES (If ves complete 15 EXPECTED SUBMISSION D										SUBI						
 In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVs), inboard MSIV C failed to actuate its associated Reactor Protection System (RPS) relay. The limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. In May 2015, during Quarterly Surveillance Testing on the MSIVs, the inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated resting on the MSIVs, the inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches. The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on July 31, 2015. 																	
associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches. The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on July 31, 2015.	In January 2015, during Quarterly Surveillance Testing on the Main Steam Isolation Valves (MSIVs), inboard MSIV C failed to actuate its associated Reactor Protection System (RPS) relay. The limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip to satisfy Technical Specifications requirements.																
The limit switches were removed and evaluated. The limit switch condition was reported to the Nuclear Regulatory Commission in a Part 21 Notification by NAMCO Controls on July 31, 2015.	associated RPS channel was placed in trip to satisfy Technical Specifications requirements. As a result, the plant was in an increased risk of an inadvertent full scram. A decision was made to shut the plant down and replace the limit switches.																
	The li Comr	imit sv missio	vitches w n in a Pa	ere ren rt 21 No	noved a otificatio	nd evaluat on by NAM	ed. The CO Co	e limit ntrols c	switch on July	conc 31, 1	diti 20	on was repo 15.	rted to the	Nuclear F	Regu	lato	у
										_			_				

NRC FORM 366 (02-2014)	U.S. NUCLEA LICENSEE EVENT (See Page 2 for req digits/characters f	R REGULATORY COMMISSION REPORT (LER) juired number of or each block)	APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017 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 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.						
1. F	ACILITY NAME	2. DOCKET		6. LER NUMBER		3. PAGE			
			YEAR	SEQUENTIAL NUMBER	REV NO				
Cooper Nuclear Station		05000298	2015	- 003	- 01	2 of 3]		

PLANT STATUS

Cooper Nuclear Station (CNS) was at 0 psig reactor pressure, in Mode 4, Cold Shutdown, at the time of discovery.

BACKGROUND

The Reactor Protection System [EIIS:JC] (RPS) provides timely protection against the onset and consequences of conditions that threaten the integrity of the reactor coolant pressure boundary. Excessive temperature threatens to perforate the cladding or melt the uranium dioxide. Excessive pressure threatens to rupture the reactor coolant pressure boundary. The RPS limits the uncontrolled release of radioactive material from the fuel and reactor coolant pressure boundary by terminating excessive temperature and pressure increases through the initiation of an automatic scram.

The Main Steam system [EIIS:SB] conducts steam from the reactor vessel [EIIS:RPV], via four steam lines, through the Primary Containment [EIIS:NH] to the Main Steam Turbine [EIIS:TA]. Each steam line has two, normally open, Main Steam Isolation Valves (MSIVs) [EIIS:ISV], one inside and one outside the Primary Containment. The MSIVs close automatically upon receipt of certain isolation signals to prevent damage to the fuel cladding by limiting the loss of reactor water during a steam line break outside Primary Containment; and also to limit the release of radioactive materials in case of a major leak from Primary Containment.

MSIV closure results in loss of the main turbine and the condenser [EIIS:COND] as a heat sink for the nuclear steam supply system and indicates a need to shut down the reactor to reduce heat generation. Therefore, a reactor scram is initiated on a MSIV-closure signal before the MSIVs are completely closed in anticipation of the complete loss of the normal heat sink and subsequent over pressurization transient.

The RPS MSIV closure signals are initiated from position switches [EIIS:33] located on each of the eight MSIVs. Each MSIV has two position switches; one inputs to RPS trip system A while the other inputs to RPS trip system B. Each RPS trip system receives an input from four MSIV-closure channels, each consisting of two position switches (one for the inboard MSIV and one for the outboard MSIV in the same steam line) in series with a sensor relay. The logic for the MSIV-closure function is arranged such that either the inboard or outboard valve on three or more of the main steam lines must close in order for a scram to occur. The design permits closure of any two lines without a full scram being initiated.

EVENT DESCRIPTION

During the October 2014 Refueling Outage 28 (RE28), limit switches A, D, and F associated with inboard MSIVs (80A-D) were replaced.

In January 2015, Quarterly Surveillance Testing was performed on the inboard MSIVs (80A-D). At this

NRC FORM 366A (02-2014)

NF FC (02-	LICENSEE EVE (See Page 2 for digits/characte	ELEAR REGULATORY COMMISSION ENT REPORT (LER) required number of ers for each block)	DN APPROVED Estimated burder Reported lesson Send comments Collections Bran 0001, or by inte Information and Washington, DC currently valid O required to response	APPROVED BY OMB: NO. 3150-0104 EXPIRES: 01/31/2017 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 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.						
	1. FACILITY NAME	2. DOCKET	1	6. LER NUMBER	3. PAGE					
	· · · · · · · · · · · · · · · · · · ·		YEAR	SEQUENTIAL NUMBER	REV NO					
Cooper Nuclear Station		05000298	2015	- 003	- 01	3 of 3	}			

time, inboard MSIV C failed to actuate its associated RPS relay. Subsequently, the limit switch and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip per Technical Specifications (TS) LCO 3.3.1.1, Condition A.

In May 2015, Quarterly Surveillance Testing was performed on the MSIVs. At this time limit switches associated with inboard MSIV A and inboard MSIV B also failed to actuate their associated RPS relay. The limit switches and associated RPS relay were declared inoperable and the associated RPS channel was placed in trip per TS LCO 3.3.1.1, Condition A, resulting in a continuous half scram.

With the plant being in an increased risk of an inadvertent full scram due to placing the RPS channel logic in a tripped condition, a decision was made to shutdown the plant and replace the limit switches. CNS shutdown on May 29, 2015, and the limit switches were replaced. The limit switches that were removed were inspected by NAMCO Controls and the switch performance problem was determined to be an inadequately stress relieved return spring resulting in decreased return spring force. NAMCO Controls reported this condition to the Nuclear Regulatory Commission in a Part 21 Notification on July 31, 2015.

BASIS FOR REPORT

This event is reportable under 10 CFR 50.73(a)(2)(i)(B) as a condition prohibited by Technical Specifications and 10 CFR 50.73(a)(2)(vii), common cause inoperability. In addition, this event is reportable as a Part 21 issue.

SAFETY SIGNIFICANCE

The safety significance is determined to be negligible based on the following:

- The safety function of the RPS SCRAM logic associated with the MSIV limit switches was preserved by placing the failed sensor channels in trip.
- All of the MSIV limit switches potentially subject to the common cause failure mechanism that had
 not previously failed were tested and found to be functional when the plant was shut down in May
 2015.
- All of the MSIV limit switches potentially subject to the common cause failure mechanism were replaced during the May 2015 outage.

PREVIOUS EVENTS

There have been no events reported in the last three years related to MSIV limit switches.