

August 12, 2015

AEP-NRC-2015-76  
10 CFR 50.73

Docket No.: 50-315

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
11555 Rockville Pike,  
Rockville, MD 20852

Donald C. Cook Nuclear Plant Unit 1  
LICENSEE EVENT REPORT 315/2015-002-00  
Technical Specification Violation Due to Inoperable Residual Heat Removal Pump

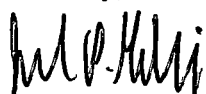
In accordance with 10 CFR 50.73, Licensee Event Report (LER) System, Indiana Michigan Power Company, the licensee for Donald C. Cook Nuclear Plant Unit 1, is submitting, as an enclosure to this letter, the following report:

LER 315/2015-002-00: "Technical Specification Violation Due to Inoperable Residual Heat Removal Pump"

There are no commitments contained in this submittal.

Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Manager, at (269) 466-2649.

Sincerely,



Joel P. Gebbie  
Site Vice President

JEN/ams

Enclosure

c: A. W. Dietrich – NRC Washington, DC  
J. T. King - MPSC  
MDEQ – RMD/RPS  
NRC Resident Inspector  
C. D. Pederson – NRC Region III  
A. J. Williamson - AEP Ft. Wayne

TE22  
NRR

**Enclosure to AEP-NRC-2015-76  
LER 315/2015-002-00**

**LICENSEE EVENT REPORT (LER)**(See Page 2 for required number of  
digits/characters for each block)

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**

Donald C. Cook Nuclear Plant Unit 1

**2. DOCKET NUMBER**

05000315

**3. PAGE**

1 OF 2

**4. TITLE**

Technical Specification Violation due to Inoperable Residual Heat Removal Pump

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
06	14	2015	2015	- 002	- 00	08	12	2015	FACILITY NAME	DOCKET NUMBER
										05000
										05000

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)			
5	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
10. POWER LEVEL  000	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

**12. LICENSEE CONTACT FOR THIS LER**

## LICENSEE CONTACT

Michael K. Scarpello, Regulatory Affairs Manager

## TELEPHONE NUMBER (Include Area Code)

(269) 466-2649

**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

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

MONTH	DAY	YEAR
10	12	2015

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

On June 14, 2015, Donald C. Cook Nuclear Plant operations personnel identified an oil leak from the Unit 1 East Residual Heat Removal (RHR) pump (Train A) lower motor bearing oil reservoir. An engineering evaluation concluded that the leak rate would preclude the pump from meeting its 30-day mission time during accident conditions, thus rendering the Unit 1 East RHR pump inoperable. Review of oil addition logs concluded that this condition has existed, but was not recognized as such, since March 9, 2015. This exceeds the 72 hours allowed by Technical Specification (TS) Limiting Condition for Operation (LCO) 3.5.2, Condition A.

Concurrent with the Unit 1 East RHR pump inoperability while in Mode 1, the Unit 1 AB Emergency Diesel Generator (EDG) (Train B) was inoperable for a scheduled maintenance window commencing May 18, 2015, and ending with a TS required shutdown due to EDG failure. The inoperable AB EDG required the Unit 1 West RHR pump to be declared inoperable in accordance with LCO 3.8.1, Condition B.3 – "Declare required feature(s) supported by the inoperable DG inoperable when its required redundant feature(s) is inoperable." The Unit 1 West RHR Pump was not declared inoperable within four hours as required by TS LCO 3.8.1, Condition B.3.

The RHR pump oil leak and the EDG have been repaired and are operable. The Cause and Extent of Condition Evaluations are ongoing; a supplement to this Licensee Event Report with additional information will be submitted upon completion.

**LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET**

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](mailto: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	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV NO.	
Donald C. Cook Nuclear Plant Unit 1	05000315	2015	- 002	- 00	2 OF 2

**NARRATIVE**

Energy Industry Identification System codes are identified in the text as [XX].

**INTRODUCTION**

On May 18, 2015, at 0010, the Unit 1 AB (Train B) Emergency Diesel Generator (EDG) [EK] was declared inoperable when it was removed from service for a scheduled maintenance window while Unit 1 was in Mode 1 at 100 percent power.

On June 1, 2015, at 0231, the Unit 1 Reactor [RCT] was shut down to comply with Technical Specification Limiting Condition for Operation (LCO) 3.8.1, Condition G.1 when EDG damage during a post maintenance run could not be repaired within the required 14-day Completion Time.

On June 14, 2015, with Unit 1 in Mode 5, operations personnel identified an oil leak from the Unit 1 East (Train A) Residual Heat Removal (RHR) [BP] pump [P] lower motor bearing oil reservoir [RVR]. An engineering evaluation concluded that the leak rate precluded the pump from meeting its required 30-day mission time during accident conditions, thus rendering the Unit 1 East RHR pump inoperable. Review of operator oil addition logs concluded that this leak had existed since March 9, 2015. The unrecognized inoperability of the 1 East RHR pump exceeded the 72 hours allowed by LCO 3.5.2, Condition A. This is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), Operation or Condition Prohibited by Technical Specifications. Unit 1 entered Mode 4 at 1821 on June 1, 2015, exiting the mode of applicability for LCO 3.5.2.

The inoperability of Unit 1 AB EDG concurrent with the inoperable Unit 1 East RHR Pump requires declaring the Unit 1 West RHR pump inoperable in accordance with LCO 3.8.1, Condition B.3 – Declare required feature(s) supported by the inoperable EDG inoperable when its required redundant feature(s) is inoperable. The inoperability of the Unit 1 East RHR pump was not recognized at this time, so the Unit 1 West RHR pump was not declared inoperable when the Unit 1 AB EDG was made inoperable.

In retrospect, had the Unit 1 East RHR pump been recognized as being inoperable, the Unit 1 West RHR pump should have been declared inoperable within four hours from when the Unit 1 AB EDG was declared inoperable on May 18, 2015, at 0010, until June 2, 2015, at 0410, when Unit 1 entered Mode 5, exiting the mode of applicability for LCO 3.8.1, AC Sources-Operating, and LCO 3.5.3, ECCS-Shutdown. This is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B), Operation or Condition Prohibited by Technical Specifications.

The offsite power sources (preferred and alternate) remained operable and available for the duration that the U1 AB EDG was inoperable thus there is reasonable assurance that the Unit 1 West RHR pump remained capable of fulfilling its safety function. For this occurrence, safety function of the Emergency Core Cooling System [BP][BQ] was not lost.

In the event of a loss of offsite power (LOOP), the Unit 1 East RHR pump was available to perform its shutdown cooling function. Therefore, capability to mitigate a LOOP was not lost.

The Unit 1 East RHR oil leak has been repaired and the pump declared operable. The Unit 1 AB EDG has been repaired and declared operable.

The Cause and Extent of Condition Evaluations are ongoing; a supplement to this Licensee Event Report with additional information will be submitted upon completion.