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Indiana Michigan Power
Cook Nuclear Plant
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Bridgman, MI 49106
AEP.com

June 20, 2007

AEP:NRC:2573-39
10 CFR 50.73
10 CFR 50.4

Docket No. 50-315

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Unit 2
LICENSEE EVENT REPORT 315/2006-002-01
FAILURE TO COMPLY WITH TECHNICAL SPECIFICATION 3.6.13,
DIVIDER BARRIER INTEGRITY

In accordance with the criteria established by 10 CFR 50.73, Licensee Event Report System, the following report is being submitted:

LER 315/2006-002-01: "Failure to Comply with Technical Specification 3.6.13, Divider Barrier Integrity"

There are no commitments contained in this submittal.

Should you have any questions, please contact Ms. Susan D. Simpson, Regulatory Affairs Manager, at (269) 466-2428.

Sincerely,

Joseph N. Jensen
Site Vice President

RAM/rdw

Attachment

JE22

NRR

- c: J. L. Caldwell, NRC Region III
K. D. Curry – AEP Ft. Wayne, w/o attachment
INPO Records Center
J. T. King, MPSC – w/o attachment
MDEQ – WHMD/RPMWS – w/o attachment
NRC Resident Inspector
P. S. Tam, NRC Washington DC

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@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 05000-315	3. PAGE 1 of 3
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4. TITLE
Failure to Comply with Technical Specification Requirement 3.6.13, Divider Barrier Integrity

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
10	03	2006	2006	-- 002	-- 01	06	20	2007	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE Mode 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)									
	<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)						
10. POWER LEVEL 100%	<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)						
	<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

FACILITY NAME Susan D. Simpson, Regulatory Affairs Manager	TELEPHONE NUMBER (Include Area Code) (269) 466-2428
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE			MONTH	DAY	YEAR
YES (If Yes, complete EXPECTED SUBMISSION DATE).	X	NO							

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

On October 5, 2006, following an inspection of the Donald C. Cook Nuclear Plant Unit 1 containment divider barrier seal, Indiana Michigan Power Company (I&M) personnel discovered that contrary to Technical Specification (TS) 3.6.13, Divider Barrier Integrity, one divider barrier seal retaining bolt was missing and a second divider barrier seal retaining bolt was missing its associated nut. The investigation of this condition determined the missing components had previously been identified in November 1998. However, the 1998 evaluation of the condition failed to identify the TS noncompliance and subsequent corrective actions failed to correct the condition.

This supplemental licensee event report is being submitted following revision of the causal investigation to incorporate revised causal statements. The historical nature of the event made it difficult to definitively identify the cause of I&M's failure to correct the condition in 1998. The probable causes of the inadequate initial evaluation and correction of the identified condition included inadequate communication, inadequate information verification and validation, and tunnel vision. The probable causes for not finding the missing bolts during the subsequent inspections are: inadequate oversight; inadequate training of personnel; and/or personnel error. The missing bolt and nut were replaced. The governing surveillance procedures have been placed on administrative hold until the procedures are enhanced to require the performance of an engineering evaluation of all areas of the divider barrier seal not inspected during each refueling cycle. Additionally, training will be provided prior to conducting future similar testing activities. The failure to comply with TS 3.6.13 is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

LICENSEE EVENT REPORT (LER)

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Donald C. Cook Nuclear Plant Unit 1	05000315	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3
		2006	-- 002	-- 01	

17. NARRATIVE (If more space is required, use additional copies of NRC Form (366A))

Conditions Prior to Event

Mode 1 – 100% power

Description of Event

On October 5, 2006, following an inspection of the Donald C. Cook Nuclear Plant Unit 1 containment divider barrier seal, Indiana Michigan Power Company (I&M) personnel discovered that, contrary to Technical Specification (TS) 3.6.13, Divider Barrier Integrity, one divider barrier seal [SEAL] retaining bolt was missing and a second divider barrier seal retaining bolt was missing its associated nut. The investigation of this condition determined that the missing components had previously been identified in November 1998. However, the 1998 evaluation of the condition failed to identify the TS noncompliance and subsequent corrective actions failed to correct the condition.

This supplemental licensee event report is being submitted following revision of the causal investigation to incorporate revised causal statements. The failure to replace the missing divider barrier seal retaining components constitutes a failure to comply with TS 3.6.13. This failure to comply with TS 3.6.13 is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

Cause of Event

The historical nature of the event made it difficult to definitively identify the cause of I&M's failure to correct the condition in 1998.

The probable causes of the inadequate initial evaluation and correction of the identified condition included inadequate communication, inadequate information verification and validation, and tunnel vision. I&M's corrective action program has been significantly enhanced since the time of this event and the current program would prevent a failure to correctly evaluate and correct similar plant nonconformances.

The probable causes for not finding the missing bolts during the subsequent inspections are: inadequate oversight; inadequate training of personnel; and/or personnel error.

Analysis of Event

The divider barrier separates the upper and lower compartments of containment and includes a flexible barrier seal located between the ice condenser [BC] compartment and the containment cylinder wall [BC]. This barrier is also located between the containment liner and other structural elements that are part of the divider barrier. Divider barrier integrity is necessary to minimize bypassing of the ice condenser by the hot steam and air mixture released into the lower compartment during a Design Basis Accident (DBA). This ensures that most of the gasses pass through the ice bed, which condenses the steam and limits pressure and temperature during the accident transient.

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The elastomeric divider barrier seal is attached on one side to a 5/8 inch thick support plate and on the other to a 1/4 inch thick structural plate with 3/8 inch diameter bolts. Two issues were noted for this attachment – one bolt is missing a nut and another bolt is missing entirely. There is no hole in the elastomeric seal where the missing 3/8 inch diameter bolt was supposed to be installed. The bolt that is missing a nut is filling its hole and the bolt head is tack welded on the far side of the structural support plate. Based on the above, no bypass of the divider barrier is judged to result from the missing nut or the missing bolt. However, Structural Design personnel conservatively calculated a deflection at both locations in order to estimate a maximum divider barrier bypass. The calculated bypass area had no significant impact on the existing bypass margin for Unit 1.

The operability evaluation concluded that there was no loss of the divider barrier function. A probabilistic risk assessment was performed and concluded that because there was no loss of divider barrier function, no additional risk was incurred as a result of the bolting issues.

Corrective Actions

The divider barrier bolting conditions described above were corrected on November 3, 2006, prior to Unit 1 entering Mode 4 following refueling.

The containment divider barrier seal surveillance test procedures for Unit 1 (1-EHP-4030-195-249) and Unit 2 (2-EHP-4030-295-249) have been placed on administrative hold until the procedures are enhanced to require the performance of an engineering evaluation of all areas of the divider barrier seal not inspected during each refueling cycle.

Training (Just-In-Time Training) will be provided to inspection personnel prior to the conduct of the containment divider barrier seal surveillance test.

Previous Similar Events

None.