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Indiana Michigan Power
Cook Nuclear Plant
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December 13, 2006

AEP:NRC:2573-36
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 1
LICENSEE EVENT REPORT 315/2006-003-00
FAILURE TO COMPLY WITH TECHNICAL SPECIFICATION
REQUIREMENT 3.3.6

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

LER 315/2006-003-00: "Failure to Comply with Technical Specification Requirement 3.3.6"

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,

Mark A. Peifer
Site Vice President

RAM/rdw

Attachment

IE22

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

NRC Form 366 (6-2004) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

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

APPROVED BY OMB: NO. 3150-0104 EXPIRES 6/30/2007

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4. TITLE

Failure to Comply with Technical Specification 3.3.6, Containment Purge Supply and Exhaust System Isolation

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	24	2006	2006	-- 003 --	00	12	13	2006	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE

Mode 6

10. POWER LEVEL

0%

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER Specify in Abstract below or in NRC Form 366A
☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Susan D. Simpson, Regulatory Affairs Manager	(269) 466-2428

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 24, 2006, Donald C. Cook Nuclear Plant Unit 1 was in MODE 6, Refueling, with core alterations in progress and the containment purge system (CPS) [VA] in service, with the CPS exhaust isolation valves open. While in this configuration, the Unit 1 Train B solid state protection system (SSPS) [JG] output mode selector switch was placed in the test position, causing the automatic isolation capability for the Train B CPS supply and exhaust valves to be inoperable.

Technical Specification (TS) 3.3.6, Containment Purge Supply and Exhaust System Isolation Instrumentation, requires two operable trains of automatic and manual isolation capability for the CPS penetrations when moving irradiated fuel assemblies in the containment building. The inoperable condition of the Train B CPS supply and exhaust valves was not immediately recognized and no immediate actions were taken to either restore operability to the valves, close the valves, or terminate movement of irradiated fuel in the containment building. Failure to immediately stop moving irradiated fuel or close the isolation valves in the CPS containment penetrations constituted a failure to comply with TS 3.3.6.

The causes of this event included inadequate procedural controls and personnel error. Corrective actions include enhancements to the applicable procedures. The failure to comply with TS 3.3.6 is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

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

Conditions Prior to Event

MODE 6 – 0% power – Core alterations in progress

Description of Event

On October 24, 2006, Donald C. Cook Nuclear Plant Unit 1 was in MODE 6, Refueling, with movement of irradiated fuel in containment and the containment purge system (CPS) [VA] in service. Containment purge exhaust isolation valves associated with CPS were open. In parallel with the refueling activities, operations and maintenance personnel were taking actions to establish the initial conditions for CD emergency diesel generator [EK] load sequencing and engineered safety features testing [JE]. The actions included the placement of the output mode selector switch on Train "B" of the solid state protection system (SSPS) [JG] in the "test" position at approximately 0400 hours on October 24, 2006. Placement of the output mode selector switch in the test position rendered the automatic isolation capability of the Train B CPS supply and exhaust valves inoperable.

Technical Specification (TS) 3.3.6, Containment Purge Supply and Exhaust System Isolation Instrumentation, requires two operable trains of automatic and manual isolation capability for the CPS containment penetrations when moving irradiated fuel assemblies in the containment building. The inoperable condition of the Train B CPS supply and exhaust valves was not immediately recognized and no immediate actions were taken to either restore operability to the valves, close the valves, or terminate movement of irradiated fuel in the containment building. Failure to immediately stop moving fuel or close isolation valves in the CPS containment penetrations constituted a failure to comply with TS.

The required action for this condition was the immediate isolation of the affected CPS penetration flow paths by closing at least one automatic valve in each path. This action was not taken and the unit remained in the specified applicable condition (i.e., movement of irradiated fuel continued). The CPS was removed from service at approximately 0550 hours on October 24, 2006. Removal of CPS from service included closure of the associated containment penetration isolation valves, satisfying the TS action requirements.

The failure to comply with TS 3.3.6 is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B).

Cause of Event

The causes of this event were:

Inadequate surveillance procedure:

The governing surveillance procedure allowed steps establishing initial conditions to be performed in any sequence; thus it failed to establish adequate controls to ensure the CPS was removed from service prior to placement of the output mode selector switch in the test position.

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

Personnel error:

The SRO in charge of the surveillance test directed the manipulation of the output mode selector switch without first communicating with and receiving permission from the unit supervisor.

In accordance with existing plant procedures, a caution tag had been placed on the output mode selector switch to ensure personnel would not take this switch to test prior to ensuring the CPS was aligned in accordance with the requirements of the TS. However, the maintenance test personnel placed the output mode selector switch in the test position because they believed the SRO was cognizant of the caution tag and it was acceptable to reposition the switch. They did not validate this belief by questioning the SRO. The placement of this caution tag was a corrective action for an earlier Unit 2 event described in LER 05000-316/2004-003-00.

Analysis of Event

The safety significance of this event is low. There was no radioactive release inside containment and the automatic CPS isolation function was not challenged during the time that Train B of CPS purge and exhaust valve automatic isolation function was inoperable.

Disabling the Train B automatic CPS isolation capability has no effect on core damage or on the probability of occurrence of a fuel handling accident. The fuel handling accident analysis inside containment does not credit either automatic or manual containment closure. However, containment closure would mitigate the radiological consequences of a postulated fuel handling accident. The Train A automatic CPS isolation capability, which is redundant to the Train B automatic CPS isolation capability, remained operable to perform the automatic CPS isolation function in the event of a postulated radioactivity release. Both trains of manual CPS isolation capability remained available to mitigate a postulated radioactivity release. Therefore, neither the postulated radiological consequences of a fuel handling accident or the capability to isolate CPS and mitigate a postulated radioactivity release were affected.

Corrective Actions

Actions to Restore Compliance with TS 3.3.6:

The Unit 1 CPS containment penetration isolation valves were closed.

Actions to Reduce Probability of Recurrence:

Inadequate surveillance procedure:

The applicable surveillance testing procedures for both trains in both units have been placed on administrative hold and will be revised to ensure the CPS will be removed from service prior to placing the SSPS output mode selector switch in the test position when fuel movement is in progress. The revision of the procedures will be completed prior to the next refueling outages.

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

Personnel error:

The caution tags on the SSPS output mode selector switches were replaced with a striped tag clearance permit. The striped tag clearance permit required the shift manager's approval prior to any manipulation of the switches.

Surveillance procedures for both units will be revised to place a striped tag clearance on the SSPS output mode selector switches. This action will be completed prior to the next refueling outages.

Previous Similar Events

Unit 2 LER 05000-316/2004-003-00, Failure To Comply With Containment Ventilation Operability Requirements Specified In Technical Specifications 3.0.4, 3.9.4, and 3.9.9. This event did not involve the SSPS output mode selector switches, but involved a loss of CPS supply and exhaust isolation system operability when breakers were opened that supplied power to the SSPS relays. Actions for operator training and placement of caution tags on the mode selector output selector switches resulted from this event, but were not effective in preventing the October 24, 2006, Unit 1 event.