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AEP
INDIANA MICHIGAN POWER

March 16, 2001

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Operating Licenses DPR-58 and DPR-74
Docket Nos. 50-315 and 50-316

Document Control Manager:

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

LER 316/2000-001-01: "Through-Liner Hole Discovered in Containment Liner"

This LER supplement is being submitted to retract LER 316/2000-001-00.

No commitments are identified in this submittal.

Should you have any questions regarding this correspondence, please contact Mr. Ronald W. Gaston, Manager, Regulatory Affairs, at 616/465-5901, extension 1366.

Sincerely,

Joseph E. Pollock
Plant Manager

/inj
Attachment

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NRC FORM 366 (6-1998) 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 06/30/2001

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Cook Nuclear Plant Unit 2	05000-316	1 OF 3

TITLE (4)

Retraction - Through-Liner Hole Discovered In Containment Liner

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION N	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
01	17	2000	2000	001	01	03	16	2001	FACILITY NAME	DOCKET NUMBER

OPERATING MODE (9)	-
POWER LEVEL (10)	0%

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)		
20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)		
20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71		
20.2203(a)(2)(ii)	20.2203(a)(4)	50.73(a)(2)(iv)	X	OTHER - RETRACTION Specify in Abstract below or in NRC Form 366A	
20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)			
20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Ronald Gaston, Compliance Licensing Manager	(616) 465-5901 X 1366

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

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

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

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

This LER is being retracted.

In November 1999, during the Coatings Assessment and Inservice Program inspection of the Unit 2 containment liner, an indication was found that appeared to be a weld repair of the liner plate. Surface preparation to allow for further inspection dislodged repair material exposing an approximately 3/16-inch circular through-liner hole. An LER was submitted in accordance with 10 CFR 50.73(a)(2)(ii)(A).

The liner hole appears to have resulted from an inadequate repair of a hole drilled through the liner in error during plant construction. A design change has restored the containment structure to its original configuration. The containment liner plate and concrete repair along with the necessary examination, inspection, and testing was completed in accordance with the ASME Section XI Repair / Replacement Plan. The Containment Inspection Program and the Safety Related Coatings Program will contribute to the identification of conditions on the liner that are adverse to quality.

The most recent 10 CFR 50 Appendix J Integrated Leakage Rate Testing (ILRT) performed on the Unit 2 containment was conducted in May 1992. The test results of the as-found condition of the liner showed the as-found leakage to be well within the maximum allowable leak rate and the performance of the liner as tested is judged to reasonably reflect its performance during accident conditions. Therefore, it is concluded that no serious degradation of the principal safety barrier occurred as was originally reported and this LER is being retracted.

Conditions Prior To Event

Unit 2 was de-fueled.

Description Of The Event

In November 1999, during the Coatings Assessment and Inservice Program inspection of the Unit 2 containment liner, an area was found that was missing the required protective coating and rusting slightly. Due to the nature of the indication and the missing coating, it was decided to further investigate the indication to determine actual base metal condition. On January 17, 2000, surface preparation to allow for further inspection dislodged repair material from a previously repaired area on the liner plate resulting in an approximately 3/16 inch circular through-liner hole. On January 17, 2000, at 1649 hours EST, an ENS report was made in accordance with 10 CFR 50.72(b)(2)(i), a condition which was found while the reactor is shutdown, which would have resulted in the plant, including its principal safety barriers, being seriously degraded or being in an unanalyzed condition that significantly compromises plant safety. This LER was therefore submitted in accordance with 10 CFR 50.73(a)(2)(ii)(A). However, a subsequent review determined that the identified defect did not reduce the functional capability of the containment. As such, no reportable condition existed, and this LER is being retracted.

To determine the extent of condition, UT (ultrasonic testing) inspections were performed in the area around the hole. The UT inspections revealed localized loss of material on the concrete containment side of the liner that was determined to be confined within an area of approximately 3 inches around the hole. The UT readings also indicated that the loss of thickness would not exceed the established ISI (inservice inspection) acceptance criteria for the Cook containment liner. The hole in the liner was found to be circular in appearance with a diameter of approximately 3/16" on the exterior (concrete side) surface and 3/4" on the interior surface. It appeared that the interior surface was prepared for repair.

While performing the liner plate repair, a piece of wood was found embedded in the concrete immediately behind the containment liner. The wood was determined to be a wire brush with a wooden handle. The wire brush was apparently dropped at the time the concrete was poured and not retrieved. It became saturated with water during the pour and provided moisture (with some oxygen content) for some period of time. This resulted in the minor material loss noted in the UT inspections. After the wood dried and the oxygen was exhausted, the corrosion would not have continued.

Cause Of The Event

The cause of the through-liner hole appeared to be from an inadequate repair of a hole drilled through the liner during construction. The wire brush was apparently dropped at the time the concrete was poured and not retrieved.

Analysis of the Event

The as-found condition of the liner defect was subjected to past containment integrated leak rate testing in accordance with 10CFR50, Appendix J, the most recent of which was completed in 1992. The 1992 test results were found to be well within allowable limits. Since the repair material (a welded steel plug) that was applied to repair the defect was easily dislodged, consideration was given to the possibility that the plug might be dislodged during a design basis event. As a consequence, this might permit an increased level of leakage under design basis accident conditions. Review of this possibility concluded the following:

- Despite being easily dislodged during preparations for repair, the location of the liner defect shielded the plug from pipe whip or jet impingement loads, as well as other impact loads comparable to those that caused the plug to become dislodged during repair preparations. Therefore, the performance of the liner as tested is judged to reasonably reflect its performance during accident conditions.

- In the unlikely event that the plug did fail during accident conditions, it was judged that there would still be no significant change in the performance of the containment leakage boundary. This is due to method of construction employed. The containment wall is poured directly against the back of the liner and its density and thickness renders it virtually impenetrable to through-wall leakage. Although no confirmatory local testing was performed to validate this judgement, an Operating Experience (OE) search found a similar event involving a containment of similar design (OE 10361, 10266). Local as-found testing was performed at the other facility and the results were satisfactory.

Based on this information, the Unit 2 containment structure would have performed its safety related function during a design basis accident in the as-found condition. Therefore, it is concluded that no serious degradation of the principal safety barrier occurred as was originally reported and this LER is being retracted.

An evaluation of the embedded wire brush determined that it was not deleterious to the concrete and the volume of concrete displaced was negligible to both the depth and the total volume of the concrete. Because of its presence in the clear cover of concrete, the brush had no impact on the structural integrity of the concrete containment. The wire brush has been removed and the damaged area repaired.

Corrective Actions

Modification 2-LDCP-4622 restored the containment structure to its original configuration and an engineering evaluation has determined that the liner continues to meet its safety-related function. The liner plate repair along with the necessary examinations, inspections, and testing was performed in accordance with the ASME Section XI Repair / Replacement Plan.

Inspection of the Unit 2 containment liner coatings and exposed surfaces has been completed. No additional deficiencies challenging the barrier integrity were identified during this visual inspection. The Containment Inservice Inspection Program and the Safety Related Coatings Program will be utilized to identify conditions on the liner plate that are adverse to quality.

Similar Events

None

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