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AEP
INDIANA
MICHIGAN
POWER

October 29, 1999

United States Nuclear Regulatory Commission
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Docket No. 50-315

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 315/99-025-00, "Technical Specification Surveillance Requirements for Auxiliary Building Crane Not Met."

There are no commitments identified in this submittal.

Sincerely,

for A. Christopher Bakken, III
Site Vice President

/srd
Attachment

c: J. E. Dyer, NRC Region III
R. P. Powers
P. A. Barrett
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R. Whale
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Records Center, INPO
NRC Resident Inspector

IE22

PDR ADOCK

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



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TITLE (4): Technical Specification Surveillance Requirements for Auxiliary Building Crane Not Met

| 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 |
| 09 | 29 | 1999 | 1999 | 025 | 00 | 10 | 29 | 1999 | Cook Nuclear Plant Unit 2 | 05000-316 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER |

| OPERATING MODE (9) | - | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11) | | | | | |
|---|---|---|---|---|---|---|---|
| POWER LEVEL (10) | 0% | 20.2201(b) | 20.2203(a)(2)(v) | X | 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) | | OTHER |
| | | 20.2203(a)(2)(iii) | 50.36(c)(1) | | 50.73(a)(2)(v) | | Specify in Abstract below or in NRC Form 366A |
| | | 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) |
|---|---|
| Ms. MB Depuydt, Regulatory Compliance | (616) 465-5901 X 1589 |

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). | X NO | | | | |

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

On September 29, 1999, with both units defueled, it was determined that the failure to test an interlock for the East Auxiliary Building Crane was reportable per 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's Technical Specifications (TS). A review of the surveillance test for Technical Specification (T/S) 4.9.7.1 had raised the concern that an interlock that prevents a weight of more than 2500 pounds from being lifted to the hook full up position and moved over the spent fuel pool was not being tested in according with T/S. The crane was not in use at the time the concern was raised.

The apparent cause of this condition is that a decision was made to not take credit for the interlock on the East crane and to rely on the crane operator to insure that a load greater that 2500 pounds is not carried over the spent fuel pool. Following repairs to the interlock, the T/S surveillance procedure was revised to include verification of the interlock and the surveillance test was successfully performed.

The primary purpose of the crane interlocks are to protect against inadvertent action on the part of the crane operator. Crane operator training, plant procedures and travel interlocks provide barriers to inadvertent action. All other interlocks have been functional, and no incidents have occurred where a load greater than 2500 pounds was taken over the spent fuel pool. Therefore, the identified condition had minimal safety implications to the health and safety of the public.

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

**Conditions Prior To Event**
Unit 1 was Defueled
Unit 2 was Defueled

**Description Of The Event**
In 1988 a single failure-proof crane, the East Auxiliary Building Crane, was installed to augment the original Auxiliary Building Crane for the Unit 2 Steam Generator Replacement. The original crane was upgraded to single failure-proof and was designated as the West Auxiliary Building Crane. The original Auxiliary Building Crane did not have the load/no load interlock, and relied on travel limits and administrative controls to prevent exceeding the 2500 pound limit. When the original crane was modified to become the West Auxiliary Building Crane, it was not supplied with the load/no load interlock because the crane cannot enter the Spent Fuel Pit exclusion zone. The East Auxiliary Building Crane main hoist has the ability to cross the Spent Fuel Pool and was supplied with the load/no load interlock. However, the installation and testing of the interlock was not completed.

The crane load/no load interlock for the East crane has not been functional since the new crane was installed. Design drawings for the crane, however, did show the interlock to be completely installed. A document prepared by the crane engineer following installation of the new East and West Auxiliary Building Cranes contained details of the operating characteristics for the new cranes. This document identified that the East crane had a load cell installed in the interlock circuitry that prevents a loaded hook from traveling over the spent fuel pool. The crane engineer stated that the load cell installation was not complete and that it would not be used as a parameter for the hook to go over the spent fuel pool. The document further stated that the crane operator would be relied on to verify that no load is carried over the spent fuel pool.

In April 1999 a concern was raised during a review of the surveillance procedure that the T/S surveillance for the 2500 pound interlock was not being met. An operability determination performed at that time stated that the administrative controls, that had been in place since before the new crane was installed, were the method by which the surveillance requirements was met, and therefore the crane was operable. The issue was raised again in late September just prior to testing of the interlock and a new operability determination was performed. It was subsequently determined that the failure to test the interlock for the East Auxiliary Building Crane that prevents a weight of more than 2500 pounds from being lifted to the hook full up position and moved over the spent fuel pool was not being tested in accordance with T/S and that the condition was reportable.

**Cause Of The Event**
The apparent cause of this condition is that a decision was made to not take credit for the interlock on the East crane and to rely on the crane operator to insure that a load greater that 2500 pounds was not carried over the spent fuel pool. The original crane did not have this interlock and it was apparently believed that continued reliance on administrative controls was acceptable. The safety evaluation for the modification package which installed the new cranes could not be located, therefore it was not possible to determine whether the T/S surveillance requirement was reviewed.

**Analysis Of The Event**
On September 29, 1999, the failure to test all Auxiliary Building Crane interlocks per T/S was determined to be a violation of T/S and reportable per 10CFR50.73(a)(2)(i)(B) as a condition prohibited by the plant's T/S.

T/S 3.9.7 states "loads in excess of 2,500 pounds shall be prohibited from travel over fuel assemblies in the storage pool. Loads carried over the spent fuel pool and the heights at which they may be carried over racks containing fuel shall be limited in such a way as to preclude impact energies over 24,240 inch pounds if the loads are dropped from the crane."

T/S 4.9.7.1 states "crane interlocks which prevent crane travel with loads in excess of 2,500 pounds over fuel assemblies shall be demonstrated OPERABLE within 7 days prior to crane use and at least once per 7 days thereafter during crane operation."

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

**Analysis Of The Event (cont'd)**

Interlocks are not designed to counteract purposeful acts. The primary purpose of the crane interlocks is to protect against inadvertent action on the part of the crane operator. Crane operator training, plant procedures and travel interlocks provide barriers to inadvertent action. Since the other 3 crane travel interlocks were functional, the crane operator would have to make a conscious decision to raise the main hook to the full up position to move a load over the Spent Fuel Pool. No instances were identified where a load greater than 2500 pounds was taken over the spent fuel pool. Therefore, the identified conditions had minimal safety implications to the health and safety of the public.

**Corrective Actions**

Repairs were made to the load cell device, hook full up interlock, to make it functional.

The T/S 4.9.7.1 surveillance test procedure was revised to incorporate testing of the interlock.

The surveillance procedure was successfully performed for the East Auxiliary Building Crane and the crane was declared operable on September 28, 1999.

AEP:NRC:1260GH, "Enforcement Actions 98-150, 98-151, 98-152 and 98-186 Reply to Notice Of Violation October 13, 1998", dated March 19, 1999, responded to identified programmatic weaknesses in the Technical Specification Surveillance Program and the plant Design and Licensing Basis. As part of the Restart effort, the adequacy of the T/S surveillance program will be evaluated. This evaluation includes verification that T/S surveillance requirements for all modes of plant operation are incorporated into T/S surveillance test procedures. This is being tracked by Restart Action Plan # 001, "Programmatic Breakdown in Surveillance Testing".

Issues associated with the delay between time of initial identification and reporting of the condition are being addressed through the Corrective Action Program.

The Root Cause investigation for this event has not been completed. If significant changes are identified as a result of the completed investigation, a supplement to this LER will be submitted.

**Similar Events**

315/99-004-01
315/99-009-00
315/99-015-00
315/99-016-00
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315/99-024-00