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FACIL:50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
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BLIND,A.A. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 92-005-00:on 920415,flang seals on containment equipment hatch & personnel airlock were not type-B tested since initial startup due to piping errors.Seals were tested in accordance w/corrected procedure.W/920515 ltr.

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TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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INDIANA MICHIGAN POWER

May 15, 1992

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852

Operating Licenses DPR-74
Docket No. 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:

92-005-00

Sincerely,

A. A. Blind
Plant Manager

/sb

Attachment

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NRC FORM 366 (6-89) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 4/30/92

ESTIMATED BURDEN PER RESPONSE TO COMPLY WTH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

# LICENSEE EVENT REPORT (LER)

| FACILITY NAME (1) | DOCKET NUMBER (2) | PAGE (3) |
|---|---|---|
| D. C. COOK NUCLEAR PLANT - UNIT 2 | 0 5 0 0 0 3 1 6 | 1 OF 0 3 |

TITLE (4) THE FLANGE SEALS ON THE CONTAINMENT EQUIPMENT HATCH AND PERSONNEL AIRLOCK WERE NOT TYPE-B TESTED SINCE INITIAL STARTUP DUE TO PIPING ERRORS

| EVENT DATE (5) | | | LER NUMBER (6) | | | | | REPORT DATE (7) | | | OTHER FACILITIES INVOLVED (8) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MONTH | DAY | YEAR | YEAR | | SEQUENTIAL NUMBER | | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAMES | DOCKET NUMBER(S) |
| 0 4 | 1 5 | 9 2 | 9 2 | — | 0 0 5 | — | 0 0 | 0 5 | 1 5 | 9 2 | | 0 5 0 0 0 |
| | | | | | | | | | | | | 0 5 0 0 0 |

| OPERATING MODE (9) | 6 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | | | |
|---|---|---|---|---|---|---|---|
| POWER LEVEL (10) | 0 0 0 | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) | | |
| | | 20.405(a)(1)(i) | 50.36(c)(1) | 50.73(a)(2)(v) | 73.71(c) | | |
| | | 20.405(a)(1)(ii) | 50.36(c)(2) | 50.73(a)(2)(vii) | OTHER (Specify in Abstract below and in Text, NRC Form 366A) | | |
| | | 20.405(a)(1)(iii) | X 50.73(a)(2)(i) | 50.73(a)(2)(viii)(A) | | | |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | 50.73(a)(2)(viii)(B) | | | |
| | | 20.405(a)(1)(v) | 50.73(a)(2)(iii) | 50.73(a)(2)(x) | | | |

LICENSEE CONTACT FOR THIS LER (12)

| NAME | TELEPHONE NUMBER |
|---|---|
| | AREA CODE |
| G. A. WEBER - PLANT ENGINEERING SUPERINTENDENT | 6 1 6 — 4 6 5 - 5 9 0 1 |

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

| CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFAC-TURER | REPORTABLE TO NPRDS | |
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| | | | | | | | | | | | |

| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|---|---|---|---|---|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X NO | | | | |

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


On April 15, 1992, with Unit 2 in Mode 6 (refueling mode) and the Upper Containment Airlock removed, test engineers discovered that piping intended to facilitate routine surveillance testing of the Personnel Airlock Flange Seals and the Equipment Hatch Flange Seals were not connected to the Flange Seal test ports, but rather to other holes only partially drilled through the flanges. The correct test taps are located on the opposite side of the air lock as indicated on the manufacturer's drawings. Plant prints accurately reflect the as-found piping configuration in Unit 2. This material condition has existed since initial construction. Per 10CFR50 Appendix J and Technical Specifications, a Type B Leak Rate Test is required to be performed every 24 months on these seals.

The test piping for Unit 1 Personnel Airlock Flange and Equipment Hatch Flange Seals were immediately verified to be installed correctly. The associated Unit 1 prints were also verified to be correct.

The Unit 2 Equipment Flange and Airlock Flange seals have only been challenged during the performance of the Type A Containment Integrated Leak Rate Tests (ILRT). All previous ILRTs have had acceptable leak rates. The Type B Leak Rate Test Procedure was modified and the Personnel Airlock Flange Seals and the Equipment Ring Flange Seals were tested on April 17, 1992; both seals exhibited a zero leakrate. A Design Change is being prepared to correct the piping discrepancy in Unit 2.

Conditions Prior To Occurrence

Unit 2 in Mode 6 (refueling) with the reactor defueled.

Description of Events

On April 15, 1992, with the Unit 2 Upper Containment airlock (EIIS/BD-AL) removed from the airlock penetration in the containment equipment hatch (EIIS/BD-PEN), test engineers discovered that the piping intended to facilitate routine surveillance testing of the airlock flange seals (EIIS/BD-SEAL) was not connected to the airlock flange seal test port but rather to another hole only partially drilled through the flange. The test port was found with a pipe plug installed in it. Upon further investigation, the test piping to the equipment hatch flange seals (EIIS/BD-SEAL) were also found improperly piped, and the test port plugged. The airlock and equipment hatch flange seals are required by Technical Specification 3.6.1.2 to be periodically leak tested in accordance with 10CFR50 Appendix J, Type B test requirements. Containment integrity was not required at the time of the discovery.

Immediately upon discovery of this condition in Unit 2, the test piping to the airlock and equipment hatch seals on Unit 1, which was in Mode 1 (power operation) at the time, were walked down and confirmed through comparison to the vendor prints to be properly configured. The plant drawing illustrating the configuration of the test piping was also in agreement with the as-built condition.

The same as-built comparisons were made in Unit 2. The test ports are correctly identified by the vendor prints for the Unit 2 airlock and equipment hatch assemblies. The plant drawing accurately reflects the as-built location of the test piping as well as its termination to the incorrect tap, which is located on the opposite side of the airlock from the actual test tap. Based on these results and research into past construction and maintenance activities involving removal of the airlock and/or equipment flange, it was concluded that these configuration errors existed from the time of original construction.

On April 17, 1992, subsequent to the discovery of these configuration errors and prior to re-establishing plant conditions which would require containment integrity to be established, the airlock was re-installed, and a leak test was performed on both the equipment hatch flange and airlock flange seals. Both seals were found to exhibit a zero leak rate. After testing, the pipe plugs were reinstalled in the test ports and the assemblies declared OPERABLE.

Cause of Event

The condition was caused by an error in the original Unit 2 plant piping configuration drawing which showed the test piping to be connected to the wrong tap location.

Analysis of Event

This event has been determined to be reportable under the provisions of 10CFR50.73.a.2.i.B as an operation prohibited by plant Technical Specification 4.6.1.2, which requires the conduct of Type B (local) leak tests to be conducted on these airlock and equipment hatch flange seals at intervals no greater than 24 months. Contrary to this requirement, a valid local test was never conducted.

The basis for conducting local leak testing is to help ensure that the total containment leakage volume will not exceed the value assumed in the accident analysis. However, the past failures to conduct local leak testing of the flange seals is not considered to have had any actual or potential adverse impact on the health or safety of the public. This is based on the following considerations:

1. The integrity of the airlock and equipment hatch flange seals is challenged as part of the Type A Containment Integrated Leak Rate Test (ILRT) which, per Technical Specification 4.6.1.2.a, is required to be performed at least 3 times every ten years in intervals of 40 $\pm$ 10 months. All previously performed ILRTs have demonstrated containment leakage volumes well within allowable limits.

2. The as-found zero leakage on the equipment hatch flange and the zero leakage measured subsequent to the reinstallation of the airlock flange, confirms the adequacy of each seal to perform its safety function and a reasonable indication of their acceptable past condition.

Corrective Actions

The plant procedure which governs the conduct of Type B and C testing in Unit 2 (**2 EHP 4030 STP.203) was revised to properly test the airlock and equipment flange seals. The seals were tested in accordance with the corrected procedure on April 17, 1992 and were found to exhibit zero leakage.

A design change will be initiated by June 30, 1992 to correct the test piping deficiency.

Similar Previous Occurrences

There are no previous similar occurrences.