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 FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana & 05000315
 AUTH.NAME AUTHOR AFFILIATION
 WOJCIK,J.T. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 SMITH,W.J. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 88-009-00:on 880927,failure to meet Tech Spec lower
 limit of detection as result of misinterpretation.

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LICENSEE EVENT REPORT (LER)

| | | | | | | | | | | | | | | | | | | | | | |
|---|--------|--|----------------|---------------------|-----------------|------------------|-----------------|-----------|-------------------------|--|--|-------------------------------|--|--|-------------------------------|------|--|--|--|----------------------|--|
| FACILITY NAME (1) D. C. Cook Nuclear Plant - Unit 1 | | | | | | | | | | DOCKET NUMBER (2) 0 5 0 0 0 3 1 5 1 OF 0 3 | | | | | | | | | | PAGE (3) 1 OF 0 3 | |
| TITLE (4) Failure to Meet Technical Specification Lower Limit of Detection As A Result of The Misinterpretation of The Technical Specification Limit of Detection Value | | | | | | | | | | | | | | | | | | | | | |
| 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) | | | | | | |
| | | | | | | | | | D.C. Cook Plant, Unit 2 | | | | | | 0 5 0 0 0 3 1 6 | | | | | | |
| 0 9 2 7 | 8 8 | 8 8 | | 0 0 9 | | 0 0 1 | 0 2 7 | 8 8 | | | | | | | 0 5 0 0 0 | | | | | | |
| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) | | | | | | | | | | | | | | | | | | | |
| POWER LEVEL (10) | | 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)(vi) | | | | 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 J. T. Wojcik - Technical Physical Sciences Department Superintendent | | | | | | | | | | TELEPHONE NUMBER AREA CODE 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 | MANUFACTURER | REPORTABLE TO NPRDS | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | 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 September 27, 1988, during the Quarterly Radiochemistry Technical Review it was determined that the Lower Limit of Detection (LLD) for gross radioactivity had not been met for compensatory samples for Radioactive Liquid Effluent Monitors and the Turbine Building Sump Composite Sampler Flow Monitor.

A review performed to determine the impact of exceeding the Technical Specification LLD limit showed that although the LLD was not met, the plant was still within the limits of 10 CFR 20 Appendix B, Table II, Column 2.

The root cause of this event was the misinterpretation of the T/S required LLD value. The value E-7 had been interpreted to mean a range of E-7 rather than the specific number of 1.0E-7.

To meet the required LLD, a four thousand second gamma spectroscopy analysis on four liters of sample will be performed within thirty minutes of obtaining the sample. This corrective action has been implemented and appropriate procedure revisions will be completed by December 31, 1988.

8811090146 881027
PDR ADOCK 05000315
S PDC

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (6) | | | PAGE (3) | | |
|-----------------------------------|-------------------|----------------|-------------------|-----------------|----------|----|-----|
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| D. C. Cook Nuclear Plant - Unit 1 | 0 5 0 0 0 3 1 5 | 8 8 | — 0 0 9 | — 0 0 | 0 2 | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Conditions Prior to Occurrence

Unit 1 at 90 percent reactor thermal power, Unit 2 in refueling mode with no fuel in reactor vessel.

Description of Event

On September 27, 1988, during the Quarterly Radiochemistry Technical Review, it was determined that the Lower Limit of Detection (LLD) for gross radioactivity was not met for compensatory samples for Radioactive Liquid Effluent Monitors (EIIS/IL-MON) [1-R-19, 2-R-19, 1-R-24, 2-R-24, 1-R-20, 2-R-20, 1-R-28, 2-R-28] and the Turbine Building Sump Composite Sampler Flow Monitor (EIIS/WH-MON) because of a misinterpretation of the technical specification required LLD value.

Action statement 24 and 25 of Technical Specification Table 3.3.12 states: ".... grab samples are analyzed for gross radioactivity (beta or gamma) at a limit of detection of at least E-7 microcuries/gram (or E-7 microcuries/ml)." In the past the Chemical Section has interpreted E-7 microcuries/gram (E-7 microcuries/ml) to mean the range of E-7 rather than 1.0E-7. As a result any LLD in the E-7 range was considered acceptable. However, during the Quarterly Radiochemistry Technical Review it was determined that E-7 microcuries/gram (E-7 microcuries/ml) should be interpreted as 1.0E-7. A review of LLD values for the compensatory samples for 1988 for the Radiation Monitors listed above was performed and it was found that the average LLD value was 6.29E-7 microcuries/ml which is greater than the required LLD of 1.0E-7 microcuries/gram (microcuries/ml).

With the exception of the affected Radioactive Liquid Effluent Monitors and the Turbine Building Sump Compositor Sampler Flow Monitor, which put us in the action statements, there were no inoperable structures, components, or systems that contributed to this event.

Cause of Event

The root cause of this event was the misinterpretation of the LLD value of E-7 microcuries/gram (E-7 microcuries/ml). The Chemical Section interpreted E-7 to mean a range rather than the specific number of 1.0E-7 microcuries/gram (1.0E-7 microcuries/ml).

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/88

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| FACILITY NAME (1) D. C. Cook Nuclear Plant - Unit 1 | DOCKET NUMBER (2) 0 5 0 0 0 3 1 5 8 8 | LER NUMBER (6) | | | PAGE (3) | | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | | |
| | | 8 8 | 0 0 9 | 0 0 | 0 3 | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Analysis of Event

This event is considered reportable under the criteria of 10CFR 50.73(a)(2)(i). A review was done to determine the impact of exceeding the Technical Specification limit for the lower limit of detection (LLD) for liquid effluents. The review showed that although the LLD was not met, the plant was still within the limits of 10CFR20 Appendix B, Table II Column 2.

Corrective Action

To meet the required LLD ($1.0E-7$ microcuries/gram) on samples required for action 24 and 25 of Technical Specification Table 3.3.12, a four thousand (4000) second gamma spectroscopy analysis on four (4) liters of sample will be performed within thirty (30) minutes of obtaining the sample. This corrective action has been implemented and appropriate procedure revisions will be completed by December 31, 1988.

Failed Component Identification

None.

Previous Similar Events

None.

Indiana Michigan
Power Company
Cook Nuclear Plant
P.O. Box 458
Bridgman, MI 49106
616 465 5901



October 27, 1988

United States Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555

Operating License DPR-58
Docket No. 50-315

Document Control Manager:

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

88-009

Sincerely,

A handwritten signature in dark ink, appearing to read 'W. G. Smith, Jr.'.

W. G. Smith, Jr.
Plant Manager

WGS:clw

Attachment

cc: D. H. Williams, Jr.
A. B. Davis, Region III
M. P. Alexich
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11