

LICENSEE EVENT REPORT (LER)

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

TITLE (4)

CONTAINMENT PURGE ISOLATION

| 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 1 | 8 4 | 8 4 | 0 0 7 | | 0 0 | 0 5 | 0 9 | 8 4 | | 0 5 0 0 0 |
| OPERATING MODE (9) | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5: (Check one or more of the following) (11) | | | | | | | | | |
| 6 | | | | | | | | | | | |
| POWER LEVEL (10) | | 0 0 1 0 | | | | | | | | | |
| | | 20.402(b) | | | | | | | | | |
| | | 20.406(a)(1)(i) | | | | | | | | | |
| | | 20.406(a)(1)(ii) | | | | | | | | | |
| | | 20.406(a)(1)(iii) | | | | | | | | | |
| | | 20.406(a)(1)(iv) | | | | | | | | | |
| | | 20.406(a)(1)(v) | | | | | | | | | |
| | | 20.406(c) | | | | | | | | | |
| | | 50.38(c)(1) | | | | | | | | | |
| | | 50.38(c)(2) | | | | | | | | | |
| | | 50.73(a)(2)(i) | | | | | | | | | |
| | | 50.73(a)(2)(ii) | | | | | | | | | |
| | | 50.73(a)(2)(iii) | | | | | | | | | |
| | | 50.73(a)(2)(iv) | | | | | | | | | |
| | | 50.73(a)(2)(v) | | | | | | | | | |
| | | 50.73(a)(2)(vi) | | | | | | | | | |
| | | 50.73(a)(2)(vii)(A) | | | | | | | | | |
| | | 50.73(a)(2)(vii)(B) | | | | | | | | | |
| | | 50.73(a)(2)(viii) | | | | | | | | | |
| | | 73.71(b) | | | | | | | | | |
| | | 73.71(c) | | | | | | | | | |
| | | OTHER (Specify in Abstract below and in Text, NRC Form 366A) | | | | | | | | | |

LICENSEE CONTACT FOR THIS LER (12)
NAME
T. A. KRIESEL, TECHNICAL - PHYSICAL SCIENCES DEPARTMENTTELEPHONE NUMBER
AREA CODE
6 1 1 6 4 1 6 1 5 1 - 1 5 9 1 0 1 1

| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | | |
|--|--------|-----------|--------------|--------------------|--|-------|--------|-----------|--------------|--------------------|--|--|
| CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs | | CAUSE | SYSTEM | COMPONENT | MANUFACTURER | REPORTABLE TO NPDs | | |
| | | | | | | | | | | | | |
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| SUPPLEMENTAL REPORT EXPECTED (14) | | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|---|----|-------------------------------|-------|-----|------|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | NO | | | | |

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

THE FOLLOWING FOUR INCIDENTS OCCURRED DURING MODE 6 IN WHICH CONTAINMENT PURGE ISOLATED DUE TO RADIATION MONITOR HIGH ALARMS. THREE OF THE INCIDENTS OCCURRED ON THE LOWER CONTAINMENT LOW RANGE NOBLE GAS RADIATION MONITOR, ERS-2405. ONE OCCURRED ON THE LOWER CONTAINMENT AIRBORNE BETA PARTICULATE MONITOR, ERS-2401. THEY ARE BEING REPORTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.73 (a)(2)(iv) WHICH STATES: "ANY EVENT OR CONDITION THAT RESULTED IN MANUAL OR AUTOMATIC ACTUATION OF ANY ENGINEERED SAFETY FEATURE (ESF) INCLUDING THE REACTOR PROTECTION SYSTEM (RPS). HOWEVER, ACTUATION OF AN ESF, INCLUDING THE RPS, THAT RESULTED FROM AND WAS PART OF THE PREPLANNED SEQUENCE DURING TESTING OR REACTOR OPERATION NEED NOT BE REPORTED."

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

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|---|--|----------------|----------------------|--------------------|----------|--|
| FACILITY NAME (1) DONALD C. COOK NUCLEAR PLANT - UNIT 2 | DOCKET NUMBER (2) 0 5 0 0 0 3 1 6 8 4 - 0 0 7 - 0 0 | LER NUMBER (6) | | | PAGE (3) | |
| | | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | | |
| | | | | | | |

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

- INCIDENT #1 - AT 2006 ON 4/11/84, A HIGH ALARM AND SUBSEQUENT TRIP OF CONTAINMENT PURGE WAS RECEIVED FROM THE LOWER CONTAINMENT LOW RANGE NOBLE GAS RADIATION MONITOR, ERS-2405. ERS-2405 HAD BEEN SET AT THE LOWEST SUGGESTED SETPOINT AT THE TIME OF THE INCIDENT. DUE TO THE STATISTICAL VARIATIONS IN THE DETECTION OF RADIOACTIVE DECAY, COUPLED WITH THE LOW AMBIENT ACTIVITY, NORMAL STATISTICAL FLUCTUATIONS IN THE DETECTED ACTIVITY ACCOUNT FOR THE HIGH ALARM ACTIVATION IN THIS EVENT. IN ORDER TO PREVENT A REOCCURRENCE, AN ALTERNATE METHODOLOGY FOR CALCULATING THE FIXED BACKGROUND SUBTRACT HAS BEEN DEVELOPED THAT RESPONDS TO THE STATISTICAL FLUCTUATIONS ASSOCIATED WITH VERY LOW LEVELS OF RADIOACTIVITY.
- INCIDENT #2 - AT 0116 ON 4/12/84, A HIGH ALARM AND SUBSEQUENT TRIP OF CONTAINMENT PURGE WAS RECEIVED FROM THE LOWER CONTAINMENT LOW RANGE NOBLE GAS RADIATION MONITOR, ERS-2405. ERS-2405 HAD BEEN SET AT THE LOWEST SUGGESTED SETPOINT AT THE TIME OF THE INCIDENT. DUE TO THE STATISTICAL VARIATIONS IN THE DETECTION OF RADIOACTIVE DECAY, COUPLED WITH THE LOW AMBIENT ACTIVITY, NORMAL STATISTICAL FLUCTUATIONS IN THE DETECTED ACTIVITY ACCOUNT FOR THE HIGH ALARM ACTIVATION IN THIS EVENT. IN ORDER TO PREVENT A REOCCURRENCE, AN ALTERNATE METHODOLOGY FOR CALCULATING THE FIXED BACKGROUND SUBTRACT HAS BEEN DEVELOPED THAT RESPONDS TO THE STATISTICAL FLUCTUATIONS ASSOCIATED WITH VERY LOW LEVELS OF RADIOACTIVITY.
- INCIDENT #3 - AT 1210 ON 4/16/84, A HIGH ALARM AND SUBSEQUENT TRIP OF CONTAINMENT PURGE WAS RECEIVED FROM THE LOWER CONTAINMENT AIRBORNE BETA PARTICULATE MONITOR, ERS-2401. THE RADIATION PROTECTION SECTION WAS NOTIFIED AND HAD BEEN AWARE OF THE INCREASING RADIATION LEVELS AND THE OCCURRENCE OF A HIGH ALARM ON ERS-2401 WAS NOT UNEXPECTED UNDER THESE CIRCUMSTANCES. AFTER THE EVENT, RADIATION PROTECTION GAVE INSTRUCTIONS TO RAISE THE HIGH ALARM SETPOINT ON ERS-2401 AND RESTART CONTAINMENT PURGE.
- INCIDENT #4 - AT 2123 ON 4/20/84, A HIGH ALARM AND SUBSEQUENT TRIP OF CONTAINMENT PURGE WAS RECEIVED FROM THE LOWER CONTAINMENT LOW RANGE NOBLE GAS RADIATION MONITOR, ERS-2405. ERS-2405 HAD BEEN SET AT THE LOWEST SUGGESTED SETPOINT AT THE TIME OF THE INCIDENT. DUE TO THE STATISTICAL VARIATIONS IN THE DETECTION OF RADIOACTIVE DECAY, COUPLED WITH THE LOW AMBIENT ACTIVITY, NORMAL STATISTICAL FLUCTUATIONS IN THE DETECTED ACTIVITY ACCOUNT FOR THE HIGH ALARM ACTIVATION IN THIS EVENT. IN ORDER TO PREVENT A REOCCURRENCE, AN ALTERNATE METHODOLOGY FOR CALCULATING THE FIXED BACKGROUND SUBTRACT HAS BEEN DEVELOPED THAT RESPONDS TO THE STATISTICAL FLUCTUATIONS ASSOCIATED WITH VERY LOW LEVELS OF RADIOACTIVITY.



INDIANA & MICHIGAN ELECTRIC COMPANY

DONALD C. COOK NUCLEAR PLANT
P.O. Box 458, Bridgman, Michigan 49106
(616) 465-5901

May 9, 1984

United States Nuclear Regulatory Commission
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Document Control Manager:

In accordance with the criteria established by 10CFR50.73
entitled Licensee Event Reporting System, the following
report/s are being submitted:

RO 84-007-0

Sincerely,

E L Townley

For W.G. Smith, Jr.
Plant Manager

/cbm

Attachment

cc: John E. Dolan
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