

## LICENSEE EVENT REPORT (LER)

|  |  |  |  |  |  |  |  |  |  |                                      |  |  |  |  |  |  |  |  |  |                      |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--------------------------------------|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|
| FACILITY NAME (1)<br>Dresden Nuclear Power Station |  |  |  |  |  |  |  |  |  | DOCKET NUMBER (2)<br>0 5 0 0 0 2 4 9 |  |  |  |  |  |  |  |  |  | PAGE (3)<br>1 OF 0 3 |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|--------------------------------------|--|--|--|--|--|--|--|--|--|----------------------|--|--|--|--|--|--|--|--|--|

E (4)

As Found Test Failure of Type B And C Tests

| 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)     |   |   |   |     |   |  |   |   |   |  |  |  |  |
| 1                         | 0   | 2    | 4  | 8                 | 4               | 8               | 4   | 0    | 1                             | 9 | 0 | 0 | 1 | 1 | 1                    | 4 | 8 | 4 | N/A | 0 | 5  | 0 | 0 | 0 |  |  |  |  |
|                           |     |      |  |                   |                 |                 |     |      |                               |   |   |   |   |   |                      |   |   |   | N/A | 0 | 5  | 0 | 0 | 0 |  |  |  |  |
| OPERATING MODE (9)<br>N   |     |      | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11) |                   |                 |                 |     |      |                               |   |   |   |   |   |                      |   |   |   |     |   |  |   |   |   |  |  |  |  |
| POWER LEVEL (10)<br>0 0 0 |     |      | 20.402(b)  |                   |                 |                 |     |      | 20.405(a)                     |   |   |   |   |   | 80.73(a)(2)(iv)      |   |   |   |     |   | 73.71(b)   |   |   |   |  |  |  |  |
|                           |     |      | 20.405(a)(1)(i)  |                   |                 |                 |     |      | 80.36(a)(1)                   |   |   |   |   |   | 80.73(a)(2)(v)       |   |   |   |     |   | 73.71(a)   |   |   |   |  |  |  |  |
|                           |     |      | 20.405(a)(1)(ii)   |                   |                 |                 |     |      | 80.36(a)(2)                   |   |   |   |   |   | 80.73(a)(2)(vii)     |   |   |   |     |   | OTHER (Specify in Abstract below and in Text, NRC Form 366A) |   |   |   |  |  |  |  |
|                           |     |      | 20.405(a)(1)(iii)  |                   |                 |                 |     |      | X 80.73(a)(2)(i)              |   |   |   |   |   | 80.73(a)(2)(viii)(A) |   |   |   |     |   |  |   |   |   |  |  |  |  |
|                           |     |      | 20.405(a)(1)(iv)   |                   |                 |                 |     |      | 80.73(a)(2)(ii)               |   |   |   |   |   | 80.73(a)(2)(viii)(B) |   |   |   |     |   |  |   |   |   |  |  |  |  |
|                           |     |      | 20.405(a)(1)(v)  |                   |                 |                 |     |      | 80.73(a)(2)(iii)              |   |   |   |   |   | 80.73(a)(2)(ix)      |   |   |   |     |   |  |   |   |   |  |  |  |  |

LICENSEE CONTACT FOR THIS LER (12)

|                                |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| NAME<br>Lawrence Coyle (X-483) |  |  |  |  |  |  |  |  |  | TELEPHONE NUMBER<br>AREA CODE 8 1 5 9 4 2 - 2 9 2 0 |  |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|

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 |
|-------|--------|-----------|--------------|--------------------|-------|--------|-----------|--------------|--------------------|
| X     |        |           |              | N                  |       |        |           |              |                    |
|       |        |           |              |                    |       |        |           |              |                    |

SUPPLEMENTAL REPORT EXPECTED (14)

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

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

Upon receiving calibration results for two flow make-up boxes used for Local Leak Rate Testing (LLRT), DTS 112 and 113, it was found that an additional 49.3 Standard Cubic Feet per Hour (SCFH) should have been added to the "as found" leakage rate of 449.2 SCFH for the Fall 1983 Unit 3 Refueling Outage. The new number of 498.5 SCFH exceeds the Technical Specifications limit of 493.116 SCFH. Safety significance was minimal since the new "as left" LLRT results increased to 225.7 SCFH, well below the Technical Specifications limit listed above. Also the Type A test results were not affected by this calibration problem. Therefore we are and have been operating within the Technical Specification's limits.

Cause of the event was an improper previous calibration of the two test boxes stemming from the design of the boxes and the environment in which they were calibrated.

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PDR ADOCK 05000249  
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## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 8/31/85

| FACILITY NAME (1)                    | DOCKET NUMBER (2) | LER NUMBER (8) |                   |                 | PAGE (3) |    |     |
|--------------------------------------|-------------------|----------------|-------------------|-----------------|----------|----|-----|
|                                      |                   | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
| Dresden Nuclear Power Station Unit 3 | 0 5 0 0 0 2 4 9   | 8 4            | — 0 1 9           | — 0             | 0 0 2    | OF | 0 3 |

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

Upon receiving calibration results for two flow make-up boxes used for Local Leak Rate Testing (LLRT), DTS 112 and 113, it was found that an additional 49.3 SCFH should have been added to the "as found" leakage rate of 449.2 SCFH for the Fall 1983 Unit 3 Refueling Outage. The new number of 498.5 SCFH exceeds the Technical Specifications limit of 493.116 SCFH or 60% of La, the maximum allowable leak rate. Safety significance was minimal since the new "as left" LLRT results increased to 225.7 SCFH, which is well below the Technical Specification's limit of 0.6 La. Also the Type A test results were not affected by this calibration problem. Therefore we are and have been operating within the Technical Specification's limit. First occurrence of this type.

Cause of the event was determined to be the improper original calibration of the two floor make-up boxes. This original calibration of DTS 112 and 113 was performed in February of 1983. The second, or recent calibration, was performed in September 1984. When the results were received it was discovered that the "as received" calibration data for the two boxes was out of tolerance and revealed an error by as much as 100% in the nonconservative direction. It was determined that there were two reasons for this discrepancy. The original calibration of the flowmeters in February 1983 was performed with the flowmeters removed from the box. The second calibration was performed with the flowmeters installed, and the flow make-up box as a whole was tested. The subtle difference in the physical calibration of the flowmeters resulted in an approximate calibration error of 50% of scale. The reason for this, is the design of DTS 112 and 113, which, when used as a unit, creates a small backpressure on the flowmeters. It was also discovered that the original calibration of the flowmeters was not done at Pa or 48 psig. (Pa equals calculated peak containment internal pressure related to the design basis accident). It was determined that the original calibration was performed at atmospheric pressure (0 psig) and at a temperature of 70°F. The recent calibration was performed at 48 psig and 70°F. The use of these two different test pressures results in an additional error of approximately 50% of scale. The uses of DTS 112 and 113 were investigated and it was determined that DTS 112 was loaned to the LaSalle Nuclear Power Station from February to September of 1983. DTS 113 was used exclusively at Dresden. LaSalle Station was immediately contacted to inform them of the calibration results. Their reply was that DTS 112 was never used to perform a LLRT. The review of LLRT's at Dresden revealed that DTS 113 was used on electrical penetrations, and DTS 112 was used on a bellows seal penetration, all occurring during the 1983 Unit 3 refueling outage. The additional 49.3 SCFH was added to the initial and final LLRT results of that outage.

A station review of the event was initiated to recommend corrective actions. The initial results of the review are as follows:

1. The glass flowmeters in DTS 112 and 113 were turned to have their scales facing the back of the test box. Metal scales were attached to the box depicting the correct calibration curve for the flowmeters.

## LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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EXPIRES: 8/31/85

| FACILITY NAME (1)                    | DOCKET NUMBER (2) | LER NUMBER (5) |                   |                 | PAGE (3) |    |     |
|--------------------------------------|-------------------|----------------|-------------------|-----------------|----------|----|-----|
|                                      |                   | YEAR           | SEQUENTIAL NUMBER | REVISION NUMBER |          |    |     |
| Dresden Nuclear Power Station Unit 3 | 0 5 0 0 0 2 4 9   | 8 4            | 0 1 9             | 0 0             | 0 3      | OF | 0 3 |

TEXT (If more space is required, use additional NRC Form 388A's) (17)

2. Signs will be attached to the boxes to require calibration of the flowmeters to be performed only as a whole unit.
3. Signs have been attached to the box stating the calibrations pressure and temperature for the flowmeters.
4. Station procedures which involve the use of DTS 112 and 113 will be revised to include:
  - a) That calibration of DTS 112 and 113 must be performed as an entire unit.
  - b) Verification of the flowmeter calibration pressure and temperature.
  - c) Additional equations to relate different pressures and temperatures as compared to the calibration pressure and temperature in determining actual leakage rates.
5. The other nuclear power stations in the CEC system were contacted and briefed in this event. It has been determined that this calibration discrepancy represents an isolated incident.

Dresden Station believes the above listed corrective actions will prevent a recurrence of this event.



**Commonwealth Edison**

Dresden Nuclear Power Station

R.R. #1

Morris, Illinois 60450

Telephone 815/942-2920

November 15, 1984

DJS Ltr #84-1291

U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555

Licensee Event Report #84-019-0, Docket #050249 is being submitted as required by Technical Specification 6.6, NUREG 1022 and 10 CFR 50.73 (a)(2)(i)(B).

D. G. Scott  
Station Superintendent  
Dresden Nuclear Power Station

DJS/kjl

Enclosure

cc: J.G. Keppler, Regional Administrator, Region III  
File/NRC  
File/Numerical

IE22  
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