

LICENSEE EVENT REPORT

CONTROL BLOCK: _____ (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | I | L | D | R | S | 2 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | _____ | 5
8 9 14 15 25 26 30 57 CAT 58

CON'T
0 1 | REPORT SOURCE | L | 0 | 5 | 0 | 0 | 0 | 2 | 3 | 7 | 0 | 1 | 3 | 0 | 7 | 8 | d | 3 | 0 | 1 | 7 | 8 |
8 60 61 68 69 74 75 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)
0 2 | After calibration of oxygen analyzer, primary containment oxygen content was found to
0 3 | be > 4% on 1-30-78 and 2-16-78 contrary to T.S.3.7.A.5.a. Events of this type have
0 4 | happened twice before, (50-249-76-17 and I-12-3-74-21). These events are of minimal
0 5 | safety significance because of their short duration (7 hrs in both cases).
0 6 |
0 7 |
0 8 |

0 9 | SYSTEM CODE | SE | CAUSE CODE | X | CAUSE SUBCODE | Z | COMPONENT CODE | INSTRU | COMP. SUBCODE | X | VALVE SUBCODE | Z |
9 10 11 12 13 18 19 20
17 | LER/RO REPORT NUMBER | 7 | 8 | SEQUENTIAL REPORT NO. | 0 | 0 | 6 | OCCURRENCE CODE | 0 | 3 | REPORT TYPE | L | REVISION NO. | 0 |
21 22 23 24 26 27 28 29 30 31 32
ACTION TAKEN | X | FUTURE ACTION | X | EFFECT ON PLANT | Z | SHUTDOWN METHOD | Z | HOURS | 0 | 0 | 0 | ATTACHMENT SUBMITTED | Y | NRPD-4 FORM SUB. | N | PRIME COMP. SUPPLIER | Z | COMPONENT MANUFACTURER | 7 | 9 | 9 | 9 |
33 34 35 36 37 40 41 42 43 44 47

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)
1 0 | The direct cause of the event was the oxygen analyzer being out of calibration. Immed-
1 1 | iate corrective action was to recalibrate and to restore the oxygen level to < 4%. Long
1 2 | term corrective action is to lower the alarm setpoint to provide an earlier indication
1 3 | of increasing content and to resolve any problems with the oxygen analyzer.
1 4 |

1 5 | FACILITY STATUS | E | % POWER | 0 | 9 | 6 | OTHER STATUS | NA | METHOD OF DISCOVERY | B | DISCOVERY DESCRIPTION | Analyzer Calibration |
7 8 9 10 12 13 44 45 46 80
1 6 | ACTIVITY CONTENT | Z | Z | AMOUNT OF ACTIVITY | NA | LOCATION OF RELEASE | NA |
7 8 9 10 11 44 45 80
1 7 | PERSONNEL EXPOSURES NUMBER | 0 | 0 | 0 | TYPE | Z | DESCRIPTION | NA |
7 8 9 11 12 13 44 45 80
1 8 | PERSONNEL INJURIES NUMBER | 0 | 0 | 0 | DESCRIPTION | NA |
7 8 9 11 12 13 44 45 80
1 9 | LOSS OF OR DAMAGE TO FACILITY TYPE | Z | DESCRIPTION | NA |
7 8 9 10 11 12 44 45 80
2 0 | ISSUED | N | DESCRIPTION | NA |
7 8 9 10 11 12 44 45 80

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NRC USE ONLY
68 69 70 71 72 73 74 75 76 77 78 79 80
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ATTACHMENT TO LICENSEE EVENT REPORT 78-006/03L-0
COMMONWEALTH EDISON COMPANY (CWE)
DRESDEN UNIT 2 (ILDRS-2)
DOCKET # 050-237

During normal operating conditions on January 30, 1978, the Unit 2 oxygen analyzer was calibrated at 1500 hours in accordance with Procedure DOS 1600-14. Following the surveillance it was discovered that the oxygen (O₂) content in the drywell was 4.2% and in the torus was 5.1%. This is in violation of Tech Spec 3.7.A.5.a. (oxygen content > 4% in primary containment). The O₂ concentrations prior to calibration were 3.3% and 3.8% respectively. On February 16, 1978, upon receipt of the torus O₂ high alarm during normal plant operation the oxygen analyzer was calibrated as above and drywell O₂ content was found to be 4.2%. The drywell air volume = 158,236 ft³ and the torus air volume (with water level at -3½") is 115,615 ft³. As a result, the average containment O₂ was calculated to be 4.027%. This is contrary to Tech Spec 3.7.A.5.a.

The direct cause of the O₂ concentration going above the 4% limiting condition of operation (LCO) was the oxygen analyzer being out of calibration. The reason for the oxygen analyzer's erratic behavior is currently believed to be due to problems with the calibration gas (i.e. bottle empty or at low pressure). The O₂ high alarm is currently set at 3.8% so that a discrepancy of only .2% in the high direction of the analyzer results in a tech spec violation. It is believed that lowering the alarm setpoint to about 3% oxygen will allow enough margin to the Technical Specification limit to account for the analyzer being out of calibration. The operator will perform an analyzer calibration (DOS 1600-14) when the alarm comes up in order to establish the accuracy of the indication. This is expected to solve the problem of O₂ concentration exceeding 4%.

The increasing oxygen content into the torus is believed to be due to air inleakage into the suppression chamber. The reactor building to torus vacuum breakers were leak rate tested prior to a unit shutdown on February 25, 1978, as part of an investigative program to determine this inleakage. A significant amount of leakage was found through AO-1601-20B, a 20" butterfly valve.

Upon investigation a bolt was found to be sheared off of the operator. This resulted in the valve failing partially open. (Reference LER #78-016/03L-0). This valve was then repaired during the unit shutdown. The amount of leakage through this valve was sufficiently high that this is believed to have been the source of the in-leakage and the problem is believed to be solved with its repair.



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March 1, 1978

BBS LTR 216-78

James G. Keppler, Regional Director
Directorate of Regulatory Operations - Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Reportable Occurrence Report #78-006/03L-0, Docket #050-237 is hereby submitted to your office in accordance with Dresden Nuclear Power Station Technical Specification 6.6.B.2.(b), conditions leading to operation in a degraded mode permitted by a limiting condition for operation.

B.B. Stephenson
Station Superintendent
Dresden Nuclear Power Station

BBS:dlz

Enclosure

cc: Director of Inspection & Enforcement
Director of Management Information & Program Control
File/NRC

MAR 6 1978