

LICENSEE EVENT REPORT

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

0 1 | N | E | F | C | S | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 4 | _____ | 5
7 8 9 14 15 25 26 37 38
 LICENSEE CODE LICENSE NUMBER LICENSE TYPE JO CAT 58

CON'T
 0 1 | R | E | P | O | R | T | S | O | U | R | C | E | L | 6 | 0 | 5 | 0 | 0 | 0 | 2 | 3 | 5 | 7 | 0 | 1 | 2 | 2 | 3 | 0 | 8 | 0 | 2 | 1 | 5 | 8 | 0 | 9
7 8 60 61 68 69 74 75 80
 REPORT SOURCE DOCKET NUMBER EVENT DATE REPORT DATE

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 | While attempting to load the diesel generator, DG-2, during the performance of a _____
 0 3 | special 24-hour diesel generator test required in response to IE Bulletin 79-23, the _____
 0 4 | generator field went to maximum excitation; therefore, the diesel was shutdown to _____
 0 5 | prevent generator damage. The failure was a result of a reference Zener diode drift _____
 0 6 | in the A-C regulator panel. The diode was replaced and the diesel generator testing _____
 0 7 | was resumed. Subsequently 10 hours later into the "resumed" test, a radiator tube _____
 0 8 | leak was discovered. This leak was repaired per maintenance order and the 24-hr. diesel _____
 test was restrated and satisfactorily completed without further incident.

0 9 | SYSTEM CODE | CAUSE CODE | CAUSE SUBCODE | COMPONENT CODE | COMP SUBCODE | VALVE SUBCODE
9 10 11 12 13 18 19 20
 E E 11 | E 12 | G 13 | G E N E R A 14 | X 15 | Z 16
 17 | LER/RO REPORT NUMBER | EVENT YEAR | SEQUENTIAL REPORT NO. | OCCURRENCE CODE | REPORT TYPE | REVISION NO.
21 22 23 24 26 27 28 29 30 31 32
 8 0 | _____ | 0 0 3 | 0 3 | L | _____
 ACTION TAKEN | FUTURE ACTION | EFFECT ON PLANT | SHUTDOWN METHOD | HOURS | ATTACHMENT SUBMITTED | NPRO-4 FORM SUB | PRIME COMP SUPPLIER | COMPONENT MANUFACTURER
33 34 35 36 37 40 41 42 43 44 47
 A 18 | Z 19 | Z 20 | Z 21 | 0 0 0 0 | Y 23 | N 24 | A 25 | G 0 8 0 26

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 | The drift of the refernece zener diode and correspondingly the generator output char-
 1 1 | acteristics was believed to have been caused by a faulty zener diode. The diode was
 1 2 | replaced per M.O. #3762 and the diesel operated satisfactorily. The diesel 24-hour
 1 3 | test was resumed. Following the diode failure & restart, the diesel was again shutdown
 1 4 | following a radiator tube leak which developed during the restarted run. This leak was
 repaired and the diesel test resumed without further incident.

1 5 | FACILITY STATUS | % POWER | OTHER STATUS | METHOD OF DISCOVERY | DISCOVERY DESCRIPTION
7 8 9 10 11 12 13 44 45 46 80
 H 28 | 0 0 0 29 | N/A 30 | A 31 | Operator observation during test 32
 1 6 | ACTIVITY CONTENT | AMOUNT OF ACTIVITY | LOCATION OF RELEASE
7 8 9 10 11 44 45 80
 Z 33 | Z 34 | N/A 35 | N/A 36
 1 7 | PERSONNEL EXPOSURES
7 8 9 11 12 13 80
 NUMBER | TYPE | DESCRIPTION
 0 0 0 37 | Z 38 | N/A 39
 1 8 | PERSONNEL INJURIES
7 8 9 11 12 80
 NUMBER | DESCRIPTION
 0 0 0 40 | N/A 41
 1 9 | LOSS OF OR DAMAGE TO FACILITY
7 8 9 10 80
 TYPE | DESCRIPTION
 Z 42 | N/A 43
 2 0 | PUBLICITY
7 8 9 10 80
 ISSUED | DESCRIPTION
 N 44 | N/A 45
 NRC USE ONLY
58 59 80

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8002260585

LER 80-03
Omaha Public Power District
Fort Calhoun Station Unit No. 1
Docket No. 05000285

Attachment No. 1

Safety Analysis

The Fort Calhoun Station Unit No. 1 Engineered Safety Features System is so designed that no single failure can prevent the safe shutdown of the plant if required. During the time diesel generator DG-2 was inoperable, Diesel Generator No. 1 was operable as were the 161KV and 345KV supplies thus providing more than adequate capability for safe shutdown of the plant in the case of an accident.

The reactor was in a refueling shutdown condition during the time of this 24-hour diesel test. Consequently, the technical specification governing diesel generator operability requirements, technical specification 2.7, was not applicable.

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Attachment No. 2

Corrective Action

While initially trying to load diesel generator DG-2, onto Bus 1A4 in an attempt to perform the 24-hour diesel load test, which was required by response to IE Bulletin 79-23, it was noticed that the generator field went to maximum excitation with no additional input to the governor. Therefore, the diesel generator was shutdown and a maintenance order written to correct the problem.

The problem was found to be a reference zener diode in the A-C regulator panel which would not hold the required voltage. This diode was replaced with a new diode, and diesel generator DG-2 operability was restored. Subsequently, the diesel generator 24 hour test was resumed.

Ten hours into the 24 hour test the diesel generator DG-2 was again shutdown due to increasing cooling water temperatures and the corresponding radiator tube leak which was discovered. A maintenance order was written to investigate the leakage and repair it. The radiator tube leak was postulated to have occurred due to a piece of metal which may have ricocheted off the radiator fan blades and punctured the radiator fins and tube sheet sufficiently to cause the leakage. However, no metal pieces/sharp objects etc. were found in the area and no pieces of the radiator assembly or housing were found to be missing. The tube leak was repaired, the coolant system filled and the 24-hour test was restarted and completed satisfactorily without further incident.



LER 30-03
Omaha Public Power District
Fort Calhoun Station Unit No. 1
Docket No. 05000285

Attachment No. 3

Failure Data

The failure of the zener diode was the third failure of this kind at the Fort Calhoun Station Unit No. 1.

The radiator tube leak was the first failure of this kind at the Fort Calhoun Station Unit No. 1.

