NRC FORM 366 (7-77) U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 | N E F C S 1 (2) | LICENSEE CODE | 0 0 0 0 0 0 0 0 0 0 0 (3) | LICENSE NUMBER | 4 1 1 1 1 (4) | LICENSE TYPE | (5) CAT

CON'T 01 | REPORT SOURCE L (6) | DOCKET NUMBER 0 5 0 0 0 2 8 5 (7) | EVENT DATE 0 1 3 1 8 0 (8) | REPORT DATE 0 2 2 5 8 0 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 An inadvertent radioactive gas release to the atmosphere occurred due to failure
03 of the rupture disk used to protect the reactor containment from overpressurization
04 during the Containment Integrated Leak Rate Test (ILRT). The release was within
05 Technical Specification Limits.

SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
S A (11)	E (12)	B (13)	P I P E X X (14)	C (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 0	—	0 0 5	/	0 3	L	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
G (18)	C (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	L (25)	8 2 9 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The release was caused by the failure of the rupture disk when the containment pres-
11 sure was stabilized at approx. 61.5 psig. The disk was designed to rupture at 66 psig.
12 The release was terminated by closing a manual isolation valve between the containment
13 penetration and the rupture disk. For the remainder of the ILRT, containment pressure
14 was monitored continuously and an operator was posted continuosly at the manual valve to open is should the containment pressure rise unexpectedly.

FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
15 H (28)	0 0 0 (29)	NA	A (31)	Operator observation

ACTIVITY RELEASED	CONTENT OF RELEASE	AMOUNT OF ACTIVITY (35)	LOCATION OF RELEASE (36)
16 G (33)	N (34)	0.002548 curies	Reactor containment to atmosphere

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION (39)
17 0 0 0 (37)	Z (38)	N/A

PERSONNEL INJURIES

NUMBER	DESCRIPTION (41)
18 0 0 0 (40)	N/A

LOSS OF OR DAMAGE TO FACILITY (43)

TYPE	DESCRIPTION
19 Z (42)	N/A

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PUBLICITY

ISSUED	DESCRIPTION (45)	NRC USE ONLY
20 N (44)	N/A	

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GPO 917-926

LER 80-05 Revision 1
Omaha Public Power District
Fort Calhoun StationUnit No. 1
Docket No. 05000285

Attachment No. 1

Safety Analysis

A rupture disk is installed in the pressurization piping for the Containment Integrated Leak Rate Test to protect the containment from being overpressurized. The rupture disk discharge piping is connected to the auxiliary building ventilation system. Stack flow rate strip chart records show that the release caused by failure of the rupture disk lasted for only three minutes before the line was manually isolated. There was no noticeable increase in count rate on the Gaseous Stack Effluent Radiation Monitors (RM-062) record during that period.

The total amount of activity released has been calculated to be 0.002548 curies.

The maximum calculated release rate of gross gaseous activity was 14.15 µCi/sec., which is less than the Technical Specification 2.9(2) limit of 83,000 µCi/sec. release rate of gaseous activity excluding halogens and particulates with half lives greater than 8 days.

The Xe-133 concentration at the site boundary using the annual average dispersion factor from the Technical Specifications has been calculated to be 3.291E-10 µCi/cc. This is 0.11% of the unrestricted area maximum permissible concentration, 3.0E-7 µCi/cc, as stated in 10CFR Part 20.

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Omaha Public Power District
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Attachment No. 2

Corrective Action

To prevent further occurrences, an investigation is being conducted to determine if the rupture disk pressure specification should be increased. Replacing the rupture disk before each test is also being considered.

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Attachment No. 3

Failure Data

This is the first event at Fort Calhoun which has resulted in a gas release due to a rupture disk failure.