

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Fort Calhoun Station, Unit No. 1	DOCKET NUMBER (2) 0 5 0 0 0 2 8 5	PAGE (3) 1 OF 0 3
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TITLE (4)
VIAS Actuation

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)																													
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<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:15%;">OPERATING MODE (9)</td> <td style="width:15%;">20.402(b)</td> <td style="width:15%;">20.406(c)</td> <td style="width:15%;"><input checked="" type="checkbox"/></td> <td style="width:15%;">60.73(a)(2)(iv)</td> <td style="width:15%;">73.71(b)</td> </tr> <tr> <td rowspan="5">POWER LEVEL (10) 1 0 0</td> <td>20.408(a)(1)(i)</td> <td>60.36(c)(1)</td> <td><input type="checkbox"/></td> <td>60.73(a)(2)(v)</td> <td>73.71(c)</td> </tr> <tr> <td>20.408(a)(1)(ii)</td> <td>60.36(c)(2)</td> <td><input type="checkbox"/></td> <td>60.73(a)(2)(vii)</td> <td rowspan="4">OTHER (Specify in Abstract below and in Text, NRC Form 306A)</td> </tr> <tr> <td>20.408(a)(1)(iii)</td> <td>60.73(a)(2)(i)</td> <td><input type="checkbox"/></td> <td>60.73(a)(2)(viii)(A)</td> </tr> <tr> <td>20.408(a)(1)(iv)</td> <td>60.73(a)(2)(ii)</td> <td><input type="checkbox"/></td> <td>60.73(a)(2)(viii)(B)</td> </tr> <tr> <td>20.408(a)(1)(v)</td> <td>60.73(a)(2)(iii)</td> <td><input type="checkbox"/></td> <td>60.73(a)(2)(ix)</td> </tr> </table>												OPERATING MODE (9)	20.402(b)	20.406(c)	<input checked="" type="checkbox"/>	60.73(a)(2)(iv)	73.71(b)	POWER LEVEL (10) 1 0 0	20.408(a)(1)(i)	60.36(c)(1)	<input type="checkbox"/>	60.73(a)(2)(v)	73.71(c)	20.408(a)(1)(ii)	60.36(c)(2)	<input type="checkbox"/>	60.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 306A)	20.408(a)(1)(iii)	60.73(a)(2)(i)	<input type="checkbox"/>	60.73(a)(2)(viii)(A)	20.408(a)(1)(iv)	60.73(a)(2)(ii)	<input type="checkbox"/>	60.73(a)(2)(viii)(B)	20.408(a)(1)(v)	60.73(a)(2)(iii)	<input type="checkbox"/>	60.73(a)(2)(ix)
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THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)

LICENSEE CONTACT FOR THIS LER (12)

NAME Lawrence T. Kusek, Supervisor-Operations Fort Calhoun Station, Unit No. 1	TELEPHONE NUMBER AREA CODE: 4 0 2 4 2 6 1 - 4 0 1 1
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
B	C	B P S X	X 9 9 9	Y					

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE) NO

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

During normal plant operation at 100% power, an unplanned actuation of the Ventilation Isolation Actuation Signal (VIAS) occurred at 1735 on March 6, 1985. The VIAS, an Engineered Safety Feature (ESF), was initiated by containment stack particulate monitor RM-061.

Following receipt of the VIAS, Emergency Procedure EP-11 (High Radioactivity) was implemented. Per EP-11, the dampers and fans of the Auxiliary Building ventilation system were cycled through various lineups to try and identify the source of the high airborne activity.

On the morning of March 7, 1985, a small reactor coolant leak was identified at the suction of the "B" charging pump. The pump was shutdown, isolated and drained. A maintenance order was issued and the pump suction line was repaired.

Following the repairs, normal ventilation was restored to the Auxiliary Building. The VIAS trip signal was reset at 1917 on March 7, 1985.

Quantitative analyses of grab air samples and ventilation stack process monitor readings indicated that no Technical Specification or 10CFR20 limits were exceeded.

No operator errors occurred. All Engineered Safety Features functioned as designed.

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					0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 308A's) (17)

While operating at 100% power on March 6, 1985, a Ventilation Isolation Actuation Signal (VIAS) occurred at 1735 due to increasing activity levels as monitored by RM-061, the vent stack particulate monitor. Prior to the actuation, maintenance personnel had been grinding in the "A" section of VA-18, the contaminated area air exhaust unit housing, in order to install a prefilter upstream of the HEPA filter.

Prior to the VIAS, a gaseous leak had existed on the waste gas vent header in the charging pump valve room (Room 7) and the room was isolated. Even though Room 7 had a known activity source, the maintenance being performed on VA-18 led Operations personnel to initially believe that the VIAS was a result of this job. Thus, in implementing Emergency Procedure EP-11 (High Radioactivity), an extensive search for a coolant leak source was initiated. This search was accomplished by isolating all of the rooms in the control area of the auxiliary building and by cycling the supply and exhaust fans VA-35A&B and VA-40B&C, respectively. It was determined that the RM-061 activity levels decreased whenever VA-40B was shutdown. Nevertheless, the search continued through the night of March 6-7, 1985.

At approximately 0800 on March 7, a health physics technician was making a routine survey of the charging pump room when she noticed what appeared to be smoke rising from the suction side of "B" charging pump. The technician immediately notified the control room, which in turn notified the auxiliary building equipment operator. The result of the equipment operator's inspection showed that a small leak had developed in a weld on the suction line of "B" charging pump. At 0833, the control room operator started "C" charging pump and shutdown "B" charging pump. The equipment operator immediately isolated the affected pump and relieved the pressure on the degraded weld.

A maintenance order was issued to repair the degraded weld. Once the leak was repaired, ventilation in the control area of the auxiliary building was returned to normal. The VIAS signal was reset at 1917. "B" charging pump was placed in service at 0141 on March 8, 1985.

It has been determined through quantitative analyses of grab air samples and ventilation stack process monitor readings that the limits set forth for such releases by Technical Specifications and 10CFR20 were not exceeded. Exposure to participating plant personnel was minimal.

VIAS, as described in the USAR, is designed to mitigate a release of significant radioiodine or radiogas from the containment to atmosphere from such sources as reactor coolant leaks. VIAS is initiated by a safety injection actuation signal (SIAS) or a containment spray actuation signal (CSAS) or a containment radiation high signal (CRHS). The CRHS feature employs five radiation monitors taking samples from the containment and/or ventilation stack. These monitors supply a 1-out-of-5 logic network to trip the VIAS lockout relay.

The five ventilation radiation monitors that actuate VIAS are also used for an isolation function similar to that performed by other process radiation monitor systems. The ventilation monitors are used as process monitors in order to satisfy the Technical Specification 2.9 objective of controlling the release of radioactive effluents to the environs to as low as practicable.

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TEXT (If more space is required, use additional NRC Form 305A's) (17)

The VIAS performs the following functions:

1. Closes the containment purge valves.
2. Closes the containment relief valves.
3. Stops the containment purge fans.
4. Closes the containment air sampling valves.
5. Places the control room ventilation in a filtered air makeup mode.
6. Closes the waste gas header release valve to the stack.

The actuation of the VIAS in this case was initiated to mitigate the consequences of an event as described in the USAR. Prior to and during this incident, containment integrity was in force and the containment ventilation valves were closed and sealed. Although there was a radioactive release to the environment, it was well contained within the specified limitations and the emergency response plan was not initiated. All plant systems involved in this scenario operated within their design basis. No operator errors or Engineered Safety Feature malfunctions occurred.

Omaha Public Power District
1623 Harney Omaha, Nebraska 68102
402/536-4000

April 8, 1985
LIC-85-143
FC-150-85

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

Reference: Docket No. 50-285

Gentlemen:

Licensee Event Report 85-002

Please find attached Licensee Event Report 85-002 dated April 8, 1985. This report is being submitted per the requirements of 10 CFR 50.73.

Sincerely,

R. L. Andrews for

R. L. Andrews
Division Manager
Nuclear Production

RLA/CWN/dao

cc: Mr. Dorwin R. Hunter, Chief
Reactor Project Branch 2
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, Texas 76011

Mr. E. G. Tourigny, NRC Project Manager
Mr. L. A. Yandell, NRC Senior Resident Inspector

INPO Records Center
Fort Calhoun File (2)
W. G. Gates - PRC Chairman
F. A. Thurtell - SARC Chairman

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