

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 03
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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)
08	07	84	84	018	00	09	05	84	N		0 5 0 0 0
<small>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following) (11)</small>											

OPERATING MODE (9) 1	POWER LEVEL (10) 11010	20.402(b)	20.406(e)	<input checked="" type="checkbox"/>	80.73(a)(2)(iv)	73.71(b)
		20.406(a)(1)(i)	80.36(a)(1)		80.73(a)(2)(v)	73.71(e)
		20.406(a)(1)(ii)	80.36(a)(2)		80.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 365A)
		20.406(a)(1)(iii)	80.73(a)(2)(i)		80.73(a)(2)(viii)(A)	
		20.406(a)(1)(iv)	80.73(a)(2)(ii)		80.73(a)(2)(viii)(B)	
		20.406(a)(1)(v)	80.73(a)(2)(iii)		80.73(a)(2)(ix)	

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 - 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 NPROS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPROS

SUPPLEMENTAL REPORT EXPECTED (14)

<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH DAY YEAR
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ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

An unplanned actuation of the Ventilation Isolation Actuation Signal (VIAS) occurred at 1105 on August 7, 1984, during the routine weekly replacement of an iodine-collection cartridge on RM-060, the ventilation discharge duct iodine monitor. After completion of the filter replacement, VIAS was reset and no further alarms occurred. No equipment malfunctions were noted.

The cause of the actuation was the failure of the chemistry technicians to notify the control room prior to filter replacement. Since RM-060 had not been taken out of service during filter replacement, exposure of the monitor to unshielded background radiation resulted in VIAS.

The iodine-collection cartridge showed no iodine accumulation, all gaseous contamination concentrations were less than the minimum detectable activities.

To prevent future unplanned VIAS actuations, an operations memorandum has been written requiring RM-060 be taken out of service during filter replacement. All plant chemists were reinstructed of the importance of control room notification prior to equipment manipulation.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Fort Calhoun Station, Unit No. 1	05000285	84	018	00	02	OF	03

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

The ventilation discharge duct gaseous iodine monitor, RM-060, alarmed on August 7, 1984, at 1105 during routine weekly replacement of the RM-060 collection filter. The alarm initiated a VIAS trip, considered part of the engineered safety feature (ESF) system.

At the time of the incident, Fort Calhoun Station Unit No. 1 was in Mode 1 operating at 100% power with containment integrity in force. The only gaseous radioactive release in progress was normal low level Auxiliary Building ventilation. RM-060, the stack monitor for measurement of I-131, was operating properly and indicating a level of I-131 below the alert setpoint. RM-060 is a cumulative monitor utilizing a charcoal cartridge and fiber prefilter. The detector is NaI (TI) with a narrow detection window centered around 361 KeV. Shortly before 1100 hours, a chemistry technician failed to contact the control room and inform them that the weekly changeout of the RM-060 cartridge and prefilter was about to begin. Normally, the control room operator turns the RM-060 control knob to the "CAL" position disabling the monitor and its VIAS function during the changeout. The technician removed the lead shield from the cartridge housing in order to remove the cartridge. This exposed the detector to background radiation of about one mR/hr. The detector alarm setpoint is 315 cpm above normal shielded background. Room background caused the detector to respond as designed and rise to a value above the alarm setpoint such that at 1105 VIAS was actuated.

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 relays.

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.

The VIAS performs the following functions:

1. Closes the containment purge valves.
2. Closes the containment pressure relief valves.
3. Stops the containment purge fans.
4. Closes the containment air sampling valves.
5. Opens the inlet and outlet vents to the safety injection pump rooms and the spent regenerant tank room.
6. Starts both control room air conditioning units and places this system in a filtered air makeup mode.
7. Closes the waste gas header release valve to the stack.

Laboratory counting of the filter being removed at the time of the VIAS actuation showed concentrations of less than the minimum detectable activities for all gaseous radioisotopes tested.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1) Fort Calhoun Station, Unit No. 1	DOCKET NUMBER (2) 0500028584	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		84	018	00	03	OF	03

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The actuation of the VIAS signal in this case was not initiated to mitigate an event, as described in the USAR. The actuation occurred while the plant was at 100% power conditions and during the replacement of the filter as per Chemistry Manual Procedure CMP-4.38. The alarm cleared and VIAS was reset with no further actuations following completion of the filter replacement and returning the monitor to service. All plant systems involved in this incident operated within their design basis with no equipment damaged or failure.

To prevent future unplanned VIAS actuations, an operations memorandum has been written requiring RM-060 be taken out of service during filter replacement. All chemistry technicians have been reinstructed of the importance of control room notification prior to any equipment manipulations, especially RM-060 filter replacement.

Other VIAS actuations that have occurred since the new LER rule went into effect on January 1, 1984, were reported in LER 84-005, LER 84-007, LER 84-006 and LER 84-014.

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

September 5, 1984
FC-707-84
LIC-84-292

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

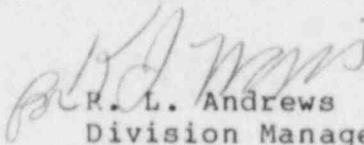
Reference: Docket No. 50-285

Gentlemen:

Licensee Event Report for
the Fort Calhoun Station

Please find attached Licensee Event Report 84-018 dated
September 5, 1984. This report is being submitted per re-
quirements of 10 CFR 50.73.

Sincerely,


R. L. Andrews
Division Manager
Nuclear Production

RLA/DJM:jmm

Attachment

cc: Mr. Richard P. Denise, Director
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and Engineering Programs
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INPO Records Center
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Fort Calhoun File (2)

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11