

Omaha Public Power District
444 South 16th Street Mall
Omaha, Nebraska 68102-2247
402/636-2000

June 13, 1994
LIC-94-0117

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Mail Station P1-137
Washington, DC 20555

Reference: Docket No. 50-285

Gentlemen:

Subject: Licensee Event Report 94-006 for the Fort Calhoun Station

Please find attached Licensee Event Report 94-006 dated June 13, 1994. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i). If you should have any questions, please contact me.

Sincerely,



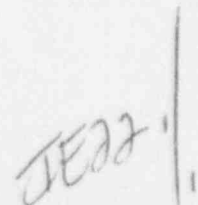
W. G. Gates
Vice President

WGG/epm

Attachment

c: LeBoeuf, Lamb, Greene & MacRae
L. J. Callan, NRC Regional Administrator, Region IV
S. D. Bloom, NRC Project Manager
R. P. Mullikin, NRC Senior Resident Inspector
INPO Records Center

9406230223 940613
PDR ADOCK 05000285
S PDR



LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

| | | |
|--|-------------------------------|--------------------|
| FACILITY NAME (1) Fort Calhoun Station Unit No. 1 | DOCKET NUMBER (2) 05000285 | PAGE (3) 1 OF 4 |
|--|-------------------------------|--------------------|

TITLE (4)
Failure to Place Charcoal Filter in Service Prior to Moving Irradiated Fuel

| EVENT DATE (5) | | | LER NUMBER (6) | | | REPORT NUMBER (7) | | | OTHER FACILITIES INVOLVED (8) | |
|----------------|-----|------|----------------|-------------------|-----------------|-------------------|-----|------|-------------------------------|------------------------|
| MONTH | DAY | YEAR | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | MONTH | DAY | YEAR | FACILITY NAME | DOCKET NUMBER |
| 05 | 14 | 94 | 94 | -- 006 -- | 0 | 06 | 13 | 94 | FACILITY NAME | DOCKET NUMBER 05000 |
| | | | | | | | | | FACILITY NAME | DOCKET NUMBER 05000 |

| | | | | | |
|-------------------------|---|-------------------|------------------|----------------------|--|
| OPERATING MODE (9) 1 | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 8: (Check one or more) (11) | 20.402(b) | 20.405(c) | 50.73(a)(2)(iv) | 73.71(b) |
| POWER LEVEL (10) 100 | | 20.405(a)(1)(i) | 50.36(c)(1) | 50.73(a)(2)(v) | 73.71(c) |
| | | 20.405(a)(1)(ii) | 50.36(c)(2) | 50.73(a)(2)(vii) | OTHER |
| | | 20.405(a)(1)(iii) | X 50.73(a)(2)(i) | 50.73(a)(2)(viii)(A) | (Specify in Abstract below and in Text, NRC Form 386A) |
| | | 20.405(a)(1)(iv) | 50.73(a)(2)(ii) | 50.73(a)(2)(viii)(B) | |
| | | 20.405(a)(1)(v) | 50.73(a)(2)(iii) | 50.73(a)(2)(x) | |

LICENSEE CONTACT FOR THIS LER (12)

| | |
|---|--|
| NAME Matthew H. Pohl Shift Technical Advisor | TELEPHONE NUMBER (Include Area Code) (402) 533-6820 |
|---|--|

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 |
|-------|--------|-----------|--------------|---------------------|-------|--------|-----------|--------------|---------------------|
| | | | | | | | | | |
| | | | | | | | | | |

SUPPLEMENTAL REPORT EXPECTED (14)

| | | | | | | |
|--|---|----|-------------------------------|-------|-----|------|
| YES (If yes, complete EXPECTED SUBMISSION DATE) | X | NO | EXPECTED SUBMISSION DATE (15) | MONTH | DAY | YEAR |
|--|---|----|-------------------------------|-------|-----|------|

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On May 14, 1994, spent fuel movement was in progress to support the Spent Fuel Pool (SPF) Rerack modification. At 1457, fuel movement was temporarily halted for shift turnover and VA-66, the SFP charcoal filter, was taken out of the filtered mode. At 1516 the operator for the new shift started fuel movement. VA-66 was not placed into the filtered mode of operation until 1547. When fuel is moved in the SPF Technical Specification (TS) 2.8(7) requires VA-66 to be in the filtered mode of operation.

The root cause of this event was determined to be poor communications.

Corrective actions include requiring on-coming operators to participate in the shift turnover and improvements to the fuel handling procedure.

**LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION**

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| FACILITY NAME (1) | DOCKET NUMBER (2) | LER NUMBER (3) | | | PAGE (3) |
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| Fort Calhoun Station Unit No. 1 | 05000285 | YEAR | SEQUENTIAL NUMBER | REVISION NUMBER | 2 OF 4 |
| | | 94 | -- 006 -- | 0 | |

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

BACKGROUND

The SFP charcoal filter (VA-66) is required to be placed in service prior to any spent fuel handling. The purpose of VA-66 is to absorb gaseous iodines in the unlikely event of a fuel handling incident which could result in a release of large quantities of radioactivity.

EVENT DESCRIPTION

On May 14, 1994, Fuel Movement 94-003 was started to support the SPF rerack modification. Per Operating Instruction OI-FH-1, control room ventilation had been placed in the Filtered Air mode, the SFP charcoal filter (VA-66) placed into the Filtered mode, and all other OI-FH-1 prerequisites were verified met.

At approximately 1400, the Shift Supervisor (SS) informed the day crew that an extra operator was being assigned to the PM crew to support the fuel movement. The SS told the crew that if the on-coming operator had previously received the fuel handling briefing, then the operator was not to attend the pre-shift briefing; rather, he was to go directly to the SFP and perform a turnover at FH-12 (SFP refueling machine).

At 1450 the on-coming FH-12 operator entered the control room. One of the off-going Licensed Operators (LO) explained the SS's expectations to the on-coming FH-12 operator. The intent of the information was not to direct taking action, but, to inform the operator as to what direction would be given by the SS when the crew was ready to move fuel. The LO added that the operator should see the SS before going to the spent fuel pool. The on-coming FH-12 operator acknowledged that he had received the fuel movement briefing only two days prior, but misinterpreted the LO's information as direction to continue the fuel movement per SS orders. At the time the FH-12 operator left the control room, all prerequisites for movement of fuel were met and fuel was being moved. The operator then proceeded into the auxiliary building to dress out. The LO reported to the SS that the on-coming FH-12 operator had arrived and had received the previously mentioned information.

At 1457, the fuel movement was temporarily halted for shift turnover, VA-66 was taken out of the filtered mode, and the day shift FH-12 operator was allowed to return to the control room. Normally, VA-66 would have remained in the filtered mode; however, Operations had been requested by the System Engineer to minimize the time that VA-66 was in the filtered mode due to an upcoming VA-66 charcoal filter sampling surveillance test.

The pre-shift briefing and turnover took place between 1500 and 1530. The on-coming crew was made aware that VA-66 was not in the filtered mode and would have to be returned to the filtered mode prior to commencing fuel movement. The PM crew was not

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TEXT: If more space is required, use additional copies of NRC Form 366A (17)

aware that the extra operator was enroute to the SFP.

When the on-coming FH-12 operator arrived at the SFP, the off-going FH-12 operator had already departed the area. The on-coming FH-12 operator was informed he would receive a turnover at FH-12. The operator was still under the impression that the control room had sent him there to resume the fuel movement. After confirming where the previous FH-12 operator had stopped within the procedure but, without a turnover, the operator latched onto the first bundle at 1516.

At 1540, the off-going SS entered the control room and asked if fuel movement had resumed. Several attempts were made via the Gai-tonics to reach the on-coming FH-12 operator. At 1547 the on-coming SS ordered that VA-66 be placed in the filtered mode and that the Shift RP Technician search the auxiliary building for the operator.

The RP found the operator on FH-12. He informed the FH-12 operator that the control room was trying to reach him via Gai-tonics. The operator contacted the control room and informed them that he had moved two irradiated fuel bundles starting at 1516. The operator also informed the control room that it was very difficult to hear the Gai-tonics system due to echoing at the SFP. The Control Room Operator ordered the FH-12 operator to cease fuel movement until continuous communication could be established with FH-12.

This event was determined to be reportable pursuant to 10CFR 50.73(a)(2)(i)(B) due to the failure to satisfy TS 2.8(7).

SAFETY ASSESSMENT

Not having VA-66 in the filtered mode during the time two irradiated fuel bundles were moved is a violation of TS 2.8(7). The Technical Specification states that "When irradiated fuel is being handled in the auxiliary building, the exhaust ventilation from the spent fuel area will be diverted through the charcoal filter, VA-66." However, there is no safety significance to not having VA-66 in the filtered mode with fuel movement in progress.

The SFP charcoal filter is required to be placed in service prior to any spent fuel handling. Its purpose is to absorb gaseous iodines in the unlikely event a fuel handling incident results in a release of large quantities of radioactivity. However, no credit is taken for VA-66 in the Updated Safety Analysis Report Fuel Handling Accident (FHA) analysis, which still provides acceptable radiological consequences. While VA-66 provides some filtration of the iodines released, a conservative assumption of no credit for iodine filtration is utilized for the FHA analysis. This event is within the conditions assumed for the FHA analysis.

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TEXT (if more space is required, use additional copies of NRC Form 366A) (17)

CONCLUSIONS

A Root Cause Analysis (RCA) was performed and the root cause was determined to be inadequate verbal communications between the off-going LO and the on-coming FH-12 operator.

Contributing causes to the event were determined to be (1) Failure of the on-coming FH-12 operator to question the whereabouts of the off-going FH-12 operator, (2) Resuming the fuel movement without receiving an adequate turnover on the current fuel handling status, (3) Procedure OI-FH-1 was inadequate in that it did not direct the operators to establish any particular type of communication, only that communications be established, and (4) Failure of the off-going crew to adequately inform the on-coming crew as to the status of the individuals performing fuel movement.

CORRECTIVE ACTIONS

- 1.) OI-FH-1 was revised to require the FH-12 operator to establish and maintain continuous communication with the control room prior to and during actual SFP fuel movement, to require the FH-12 operator to receive a face-to-face turnover from the off-going FH-12 operator, or from the operations crew SS or LSO, and also to require the FH-12 operator to obtain permission from the SS or LSO prior to starting fuel movement.
- 2.) A Shift Supervisor's meeting was held on May 14, 1994 with the Operations Supervisor and Plant Manager. The event was discussed including management's expectations for reverifying fuel handling prerequisites if fuel movement is interrupted and expectations for crew turnovers. In addition, a memorandum was sent to all Operations personnel on the event and the need for face-to-face turnovers. These communications issues are also being reemphasized during crew briefings held by the Operations Supervisor and Plant Manager. These briefings are currently in progress and will be completed by June 30, 1994.
- 3.) SO-0-1 will be changed to require operators, when reporting for work on a new shift, to attend the pre-shift briefing, unless a specific exemption is granted by the Shift Supervisor or LSO based upon ongoing work which is critical to the safe operation of the station. This will be completed by July 31, 1994.

PREVIOUS SIMILAR EVENTS

LER 93-011 and LER 92-020 reported previous events involving inadequate verbal communications as a contributing cause to the events. In both of these events the communications breakdowns occurred mainly between non-operations groups and operations.