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June 7, 2006
LIC-06-0052

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

Reference: Docket No. 50-285

Subject: Licensee Event Report 2006-001 Revision 0 for the Fort Calhoun Station

Please find attached Licensee Event Report 2006-001, Revision 0, dated June 7, 2006. This report is being submitted pursuant to 10 CFR 50.73(a)(2)(i)(B). If you should have any questions, please contact me.

Sincerely,

J. A. Reinhart
Site Director – Fort Calhoun Station

JAR/EPM/epm

Attachment

c:
INPO Records Center

IE22

NRC FORM 366 (6-2004) U.S. NUCLEAR REGULATORY COMM

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 06/30/2007

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE EVENT REPORT (LER)

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

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Fort Calhoun Station	05000285	1 OF 4

4. TITLE

Failure To Report Inoperable Containment Air Lock Valve Violates Technical Specifications

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
04	07	2006	2006	001	00	06	07	2006	FACILITY NAME	DOCKET NUMBER 05000

9. OPERATING MODE

1

10. POWER LEVEL

100

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*

- ☐ 20.2201(b)
- ☐ 20.2201(d)
- ☐ 20.2203(a)(1)
- ☐ 20.2203(a)(2)(i)
- ☐ 20.2203(a)(2)(ii)
- ☐ 20.2203(a)(2)(iii)
- ☐ 20.2203(a)(2)(iv)
- ☐ 20.2203(a)(2)(v)
- ☐ 20.2203(a)(2)(vi)
- ☐ 20.2203(a)(3)(i)
- ☐ 20.2203(a)(3)(ii)
- ☐ 20.2203(a)(4)
- ☐ 50.36(c)(1)(i)(A)
- ☐ 50.36(c)(1)(ii)(A)
- ☐ 50.36(c)(2)
- ☐ 50.46(a)(3)(ii)
- ☐ 50.73(a)(2)(i)(A)
- ☒ 50.73(a)(2)(i)(B)
- ☐ 50.73(a)(2)(i)(C)
- ☐ 50.73(a)(2)(ii)(A)
- ☐ 50.73(a)(2)(ii)(B)
- ☐ 50.73(a)(2)(iii)
- ☐ 50.73(a)(2)(iv)(A)
- ☐ 50.73(a)(2)(v)(A)
- ☐ 50.73(a)(2)(v)(B)
- ☐ 50.73(a)(2)(v)(C)
- ☐ 50.73(a)(2)(v)(D)
- ☐ 50.73(a)(2)(vii)
- ☐ 50.73(a)(2)(viii)(A)
- ☐ 50.73(a)(2)(viii)(B)
- ☐ 50.73(a)(2)(ix)(A)
- ☐ 50.73(a)(2)(x)
- ☐ 73.71(a)(4)
- ☐ 73.71(a)(5)
- ☐ OTHER

Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER (Include Area Code)
Erick Matzke, Compliance Engineer	402-533-6855

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR

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

On April 10, 2006, at 0843 (Central Daylight Time), Condition Report 200601444 was created to document leakage from the Inner Personnel Air Lock (PAL) door equalizing valve. While the condition was reported on April 10, 2006, actual discovery followed a containment entry on April 07, 2006. Due to the delay in reporting, a technical specification (TS) for containment was violated, requiring application of a TS shutdown. At 1000 CDT on April 10, 2006, the Shift Manager was notified of CR 200601444, and TS 2.0.1(1) was entered. The valve was repaired prior to completing the shutdown and the plant was returned to 100 percent power.

The root causes of the event were; the failure of the operator to recognize the TS significance of the equalizing valve leakage as a challenge to a fission product barrier; and, the lack of procedural controls to verify operation of the equalizing valve following use of the PAL.

The equalizing valve was repaired and tested to ensure its operability. A step has been added to the procedure controlling access to containment at power for operations to inspect the equalizing valve on final egress.

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

BACKGROUND

Technical Specification (TS) 2.6(1)(b)(ii) reads as follows:

"With the personnel air lock inoperable, except as the result of an inoperable air lock door, maintain at least one air lock door closed; restore the inoperable air lock to operable status within 24 hours or be in at least hot shutdown within the next 6 hours and in cold shutdown within the following 30 hours."

TS 2.0.1 (1) is the generic shutdown criteria and reads as follows:

"In the event a Limiting Condition for Operation and/or associated action requirements cannot be satisfied because of circumstances in excess of those addressed in the specification, the unit shall be placed in at least HOT SHUTDOWN within 6 hours, in at least subcritical and < 300°F within the next 6 hours, and in at least COLD SHUTDOWN within the following 30 hours, unless corrective measures are completed that permit operation under the permissible action requirements for the specified time interval as measured from initial discovery or until the reactor is placed in an Operating Mode in which the specification is not applicable. Exceptions to these requirements shall be stated in the individual specifications."

EVENT DESCRIPTION

On April 7, 2006, three entries into containment, at power, were made to implement a temporary modification. The first entry, at approximately 1315 Central Daylight Time (CDT), involved a Radiation Protection (RP) Technician and a Licensed Operator (LO). During this entry, no abnormal conditions were noted. They exited at approximately 1325 CDT.

The second entry into containment included an Equipment Operator (EO) as an independent verifier on a valve position. At approximately 1411 CDT, air was heard leaking from the inner door equalizing valve when the outer containment Personnel Access Lock (PAL) door was opened. The air flow was strong enough to blow the RP Technician's smears from the step-off pad. The LO indicated that the RP Technician was looking around and pointed out that he could hear air from the inner PAL door equalizing valve. The two had a brief conversation about the leak. The LO indicated that he fully intended to return to the control room and write a Condition Report (CR) to document the issue. The LO indicated that, while the EO was in the PAL at the same time, the EO was not involved in the conversation that took place. The LO also said that he and the EO never had a conversation about the equalizing valve. All three individuals exited at approximately 1421 CDT.

The third entry into containment, at approximately 1450 CDT, also involved the same three individuals. Other than the leaking equalizing valve, nothing out of the ordinary was observed. They exited at approximately 1500 CDT.

None of the individuals involved in the entries informed the control room about the leaking equalizing valve or wrote a CR on April 7, 2006.

After the final containment entry, the LO signed the RP verification sheet for the Restricted High Radiation Area. The LO then went to the control room to sign off temporary modification paperwork. The Control Room Supervisor indicated that he and the LO had a short conversation regarding the temporary modification, but there was no mention of the leaking equalizing valve. The focus of the conversation was on the temporary modification. At approximately 1530 CDT, the control room was contacted about an unrelated problem. Since there was a high work load for the on-shift operators, the LO volunteered to go investigate the problem. After investigating the problem, at approximately 1600 CDT, he left for the day.

At approximately 1530 CDT, the RP Technician verified that the signatures were on the verification sheet for the Restricted High Radiation Area. At this time, he asked the Shift RP Technician if the operators had mentioned the leaking equalizing valve. The Shift RP Technician said the operators had not, but was sure they would initiate a condition report if needed. The RP Technician then went to the Supervisor – ALARA (As Low As Reasonably Achievable) to ensure someone else knew of the issue. The Supervisor - ALARA immediately called the Supervisor – Mechanical Maintenance to discuss the issue. The Supervisor – Mechanical Maintenance later recalled that he had understood that the call was more of a "heads-up" that there might be a problem with the PAL. No details explicitly stating a problem with the equalizing valve were given and he thought that he might have to recondition PAL door seals. Upon successful completion of the surveillance test, and unaware of any additional problem, he thought the issue was resolved. The RP Technician left for the day after talking with the Supervisor- ALARA.

The involved personnel did not inform the control room about the leaking equalizing valve or write a CR. Therefore, the need to enter the TS action statement was not known.

On April 10, 2006, at 0843 CDT, CR 200601444 was created to document leakage from the inner PAL door equalizing valve. While the condition report was initiated on April 10, 2006, actual discovery followed a containment entry on April 07, 2006. At 1000 CDT on April 10, 2006, the Shift Manager was notified of CR 200601444 and TS 2.0.1(1), was entered. Due to the delay in reporting the issue to the control room, TS 2.6(1)b(ii) was violated, requiring application of TS 2.0.1(1). At 1055 CDT a reactor shutdown was commenced.

At 1308 CDT containment integrity was reestablished by completing repairs and testing of the inner PAL door equalizing valve. The PAL was declared operable and the station exited TS 2.01(1).

At 1324 CDT on May 10, 2006, a four (4) hour notification was made to the NRC Headquarters Operation Office (HOO) per 10 CFR 50.72 (b)(2)(i). At 1345 CDT, power ascension was commenced. This report is being made per 10 CFR 50.73(a)(2)(i)(B)

CONCLUSION

A root cause analysis of this event was performed and the following conclusions were reached:

Root Causes

1. The failure of the LO to recognize the TS significance of the equalizing valve
2. The lack of procedural controls to verify operation of the equalizing valve following use of the PAL

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

Contributing Causes

1. Failure of the EO to display a questioning attitude towards a challenge to a fission product barrier
2. Failure of the RP Supervisor to verify the assumption that operations management was aware of the equipment failure
3. Lack of adequate post job review of the completed activities

CORRECTIVE ACTIONS

The PAL door inner equalizing valve was repaired and tested to ensure operability. A step has been added to the procedure controlling access to containment at power for operations to inspect the equalizing valve on final egress. Additional corrective actions are being addressed by the corrective action system.

SAFETY SIGNIFICANCE

Even though the PAL was inoperable, one door remained capable of maintaining a fission product barrier. The outer door remained operable and locked closed from the final exit until repairs were complete. Therefore, containment integrity was maintained and there was no impact on the health and safety of the public

PREVIOUS SIMILAR EVENTS

There have not been any other instances of a similar nature that have occurred at the Fort Calhoun Station.