



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION IV

611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-8064

NOV 15 1994

Docket: 50-458
License: NPF-47

Entergy Operations, Inc.
ATTN: John R. McGaha, Vice President -
Operations, River Bend Station
P.O. Box 220
St. Francisville, Louisiana 70775

SUBJECT: NRC INSPECTION REPORT 50-458/94-18

Thank you for your letter of October 14, 1994, in response to our letter and Notice of Violation dated September 16, 1994. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Bill Beach".

A. Bill Beach, Director
Division of Reactor Projects

cc:

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President and Chief Operating Officer
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Jackson, Mississippi 39286-1995

Entergy Operations, Inc.
ATTN: Jerrold G. Dewease, Vice President
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P.O. Box 31995
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Q PDR

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Entergy Operations, Inc.
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Entergy Operations, Inc.

-3-

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-4-

bcc to DMB (IE01)

bcc distrib. by RIV:

L. J. Callan
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 Project Engineer (DRP/D)
 MIS System
 RIV File
 Senior Resident Inspector (Cooper)

Resident Inspector
 Leah Tremper (OC/LFDCB, MS: TWFN 9E10)
 Senior Resident Inspector (Grand Gulf)
 DRSS-FIPB
 Branch Chief (DRP/TSS)

RIV:PE:DRP/D	C:DRP/D	D:DRP		
GAPick; c	CAVanDenburgh	ABBeach		
11/11/94	11/15/94	11/11/94		

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Entergy Operations, Inc.

-4-

bcc to DMB (IE01)

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RIV:PE:DRP/D	C:DRP/D	D:DRP		
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11/15/94	11/15/94	11/15/94		

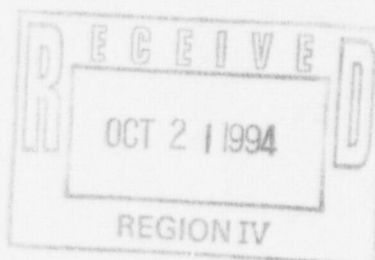


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JAMES J. FISICARO
Director
Nuclear Safety

October 14, 1994

U.S. Nuclear Regulatory Commission
Document Control Desk
Mail Stop P1-37
Washington, D.C. 20555



Subject: River Bend Station - Unit 1
Docket No. 50-458
License No. NPF-47
Reply to Notices of Violation Described in
Inspection Report 50-458/94-18, dated September 16, 1994

File No.: G9.5, G15.4.1

RBG-40935
RBF1-94-0054

Gentlemen:

Pursuant to 10CFR2.201, attached is Entergy Operations, Inc.'s response to notices of violation described in NRC Inspection Report (IR) 50-458/94-18.

In the Inspection Report, the Staff expressed concerns regarding the three violations. The first concern deals with failure to properly implement a corrective action committed to in a Licensee Event Report. River Bend Station (RBS) management certainly understands that any condition adverse to quality warrants technically sound and comprehensive corrective actions. Entergy is committed to making improvements in this area through initiatives such as the Long Term Performance Improvement Plan (LTPIP). As you know, the LTPIP includes procedure related initiatives which should reduce the potential for a similar occurrence in the future.

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Reply to Notice of Violation IR 94-18
October 14, 1994
RBG-40935
RBF1-94-0054
Page 2 of 3

The Staff's second concern relates to a local leak rate test procedure that was performed and signed-off as being complete, when in fact, other valves in the isolated boundary were not tested. You also requested that Entergy Operations address actions taken or planned to ensure that there are no additional surveillance test procedures (STPs) signed off as completed if they are not. Our review of the circumstances surrounding violation 9418-02 suggests that any potential vulnerability in this area is limited to those STPs which implement 10CFR50, Appendix J requirements. As discussed in the attached response, a review of these STPs did not reveal any discrepancies.

As previously communicated to you, we recognize that our procedure quality requires improvement and, as communicated earlier, we have implemented a Procedures Upgrade Project for that purpose. As part of this project, we recently issued a major revision to the upper-tier procedure that governs control and use of RBS procedures. This revision will strengthen the processes we use for revising, cancelling, reviewing and approving procedures, including all STPs. Specifically, the revised process does not permit changes to procedure scope or intent without multiple reviews.

Your final concern regarding two valves that were found out of their required position is an issue that EOI is striving to eliminate. We have determined that the most probable root cause of the mispositioned valves is personnel error. A review of our condition report database suggests that valve misposition is a relatively uncommon occurrence. We recognize the importance of human performance and will continue to pursue the related initiatives in the LTPIP.

Should you have any questions, please contact Mr. T. W. Gates at (504) 381-4866.

Sincerely,

JJF/kvm
attachments

Reply to Notice of Violation IR 94-18

October 14, 1994

RBG-40935

RBF1-94-0054

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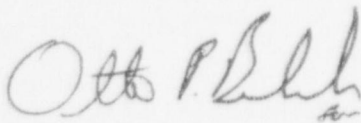
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Sincerely,



JJF/kvm
attachments

Reply to Notice of Violation IR 94-18

October 14, 1994

RBG-40935

RBF1-94-0054

Page 3 of 3

cc: U.S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

NRC Resident Inspector
P.O. Box 1051
St. Francisville, LA 70775

Mr. D.L. Wigginton
U.S. Nuclear Regulatory Commission
Mail Stop O13-H-3
Washington, DC 20555

**Reply to Notice of Violation
94-18-01**

VIOLATION

10 CFR Part 50, Appendix B, Criterion XVI states, in part, that conditions adverse to quality and nonconformances shall be promptly identified and corrected to preclude repetition.

In Licensee Event Report 458-92-012, the licensee identified that containment isolation Thermal Relief Valves 1E22*RVF039, 1E12*RVF036, 1E12*RVF030, and 1E12*RVF005 were not leak rate tested as required by Technical Specification 3.6.4. The licensee's corrective actions included revising and implementing surveillance test procedures to test the four valves with a water leak test.

Contrary to the above, as of August 18, 1994, a condition adverse to quality was not corrected in that Thermal Relief Valve 1E22*RVF039 was never tested because of a valve lineup error made while revising Surveillance Test Procedure STP-203-3829, "High Pressure Core Spray Valve Leak Rate Test (water)."

REASON FOR THE VIOLATION

Entergy Operations, Inc. admits this violation and believes the reason for the violation was personnel error made during the procedure revision process, in that the revised surveillance procedure did not receive an adequate technical review.

Surveillance Test Procedure (STP)-203-3829, "High Pressure Core Spray Valve Leak Rate Test (Water)," was revised to extend its test boundary to include Thermal Relief Valve 1E22*RVF039 for testing during RF-4. This valve, along with three other valves, was added to the test program to comply with technical specification requirements as discussed in River Bend LER-92-012. During the procedure revision process, the applicable valve lineup data sheet was revised to change the test boundary to close condensate storage tank return valve 1E22*MOVF011. STP-203-3829 was later issued and implemented during RF-4.

Following RF-5, it was discovered that relief valve 1E22*RVF039 was not tested because no specific step had been added to the STP to open valve 1E22*MOVF010, which would have allowed valve 1E22*RVF039 to be tested. Review of the STP (and P&IDs) revealed that the valve lineup data sheet should have been revised to not only close condensate return valve 1E22*MOVF011, but also to open valve 1E22*MOVF010. The primary purpose of the procedure revision was to include valve 1E22*RVF039 within the test boundary of the STP; however, personnel revising the procedure did not perform an adequate review of required document (including P&IDs) to ensure that valve 1E22*RVF039 would be tested.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

The following corrective steps were taken in response to this event:

1. A Condition Report (CR 94-1035) was written to document this condition and to facilitate disposition and implementation of corrective actions.
2. Relief Valve 1E22*RVF039 was verified to have been seated and leak tight by evidence of system pressure observed on other valves within the test boundary.
3. Surveillance Test Procedures for the remaining 17 valves referenced in LER 92-012 requiring water leak rate tests were reviewed. All required testing for these valves was verified to be complete.
4. A review of all low pressure leak rate test procedures (and a representative sample of air test procedures) was performed to ensure the technical adequacy of each procedure. The review consisted of an assessment of previously performed procedures and of P&IDs to confirm correct valve lineup, system test configuration, test method, and compliance with technical specification requirements.
5. The personnel involved in this event are no longer employed at RBS. As such, no specific personnel related corrective action is necessary.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION

Entergy Operations, Inc. will continue to implement initiatives to improve human performance. As discussed in previous correspondence to the staff, these initiatives allow increased focus on oversight, control of work activities, and personnel accountability.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance has been achieved.

**Reply to Notice of Violation
94-18-02**

NOTICE OF VIOLATION

Technical Specification 6.8.1.d states, in part, that written procedures shall be implemented and maintained covering surveillance and test activities of safety-related equipment.

Surveillance Test Procedure (STP)-204-3831, "Residual Heat Removal Loop B Valve Leak Rate Test (Water)," Revision 3, includes Valves 1E12*MOV004B, 1E12*MOV064B, and 1E12*RVF017B within the test boundary.

Contrary to the above, on May 15, 1994, the system test valve lineup was altered, removing test pressure from the above three valves. The procedure was signed off as having satisfactorily tested the valves when, in fact, they were not.

REASON FOR THE VIOLATION

Entergy Operations, Inc. believes that the reason for the violation was personnel error in that valve 1E12*RVF030 was removed from the test boundary of the STP and an adequate technical review was not performed to determine if other valves would be affected by the change.

During RF-5, test personnel were in the process of performing an 18-month leak rate test of Residual Heat Removal (RHR) Loop "B" containment isolation valves when they discovered that Relief Valve 1E12*RVF030 was unseated and leaking by. A maintenance work order was initiated to repair the relief valve. Due to the time involved in reworking the leaking relief valve (1E12*RVF030), and in an effort to ensure that the remaining valves within the scope of STP-204-3831 were tested, test personnel were instructed to perform a partial performance of the STP. (Procedures allow for partial performance of components during testing, as necessary.) A change notice was initiated to include relief valve 1E12*RVF030 within the test boundary of another surveillance procedure to meet post-maintenance retest requirements. The test boundary for STP-204-3831 was reduced in order to isolate relief valve 1E12*RVF030 and to complete the STP.

As reflected in NRC IR 94-18, a post-outage review of STP-204-3831 revealed that as a result of isolating relief valve 1E12*RVF030, motor operated valves 1E12*MOV004B, 1E12*MOV064B, and relief valve 1E12*RVF017B were also isolated from the intended test boundary of STP-204-3831. These valves were subsequently signed-off as being satisfactorily tested when, in fact, they had not been tested. The inadvertent isolation of these valves occurred because test personnel did not perform the necessary technical review to ensure that when removing valve 1E12*RVF030 from the test boundary of the STP, no other valves would be impacted. Additionally, if an independent review of the change had been performed

by LLRT personnel prior to implementing the modified STP, valves 1E12*MOV004B, 1E12*MOV064B, and 1E12*RVF017B would have been included within the test boundary of STP-204-3831 and therefore, the signatures would have been valid.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

The following corrective steps were taken in response to this event:

1. A maintenance history review was conducted of work activities associated with valves 1E12*MOV004B, 1E12*MOV064B, and 1E12*RVF017B since their last comprehensive performance test (July 10, 1993). The purpose of this review was to determine if the valves' integrity had been compromised. Results indicated that the valves would meet their design safety function.
2. A complete performance of STP-205-3831 was scheduled and satisfactorily completed on September 20, 1994. This test was performed to provide additional assurance that valves 1E12*MOV004B, 1E12*MOV064B, and 1E12*RVF017B would perform as designed.
3. A review of all low pressure water leak rate test procedures (and a representative sample of air test procedures) was performed to ensure the technical adequacy of each procedure. The review consisted of an assessment of previously performed procedures and P&IDs to confirm correct valve lineup, system test configuration, test method and compliance with technical specification requirements. This process confirmed that the criteria for determining satisfactory performance had been attained and no additional surveillance test steps had been signed-off as being complete without actually being performed.
4. The personnel involved in this event are not longer employed at River Bend Station. As such, no specific personnel related corrective action is necessary.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATION

Surveillance Test Procedures (STPs) that implement 10CFR50, Appendix J requirements will be revised to require an independent (second party) review of changes (in scope or boundary) required during testing. Procedure revisions will be accomplished prior to their next performance, i.e., RF-6.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend Station is in full compliance.

**Reply to Notice of Violation
94-18-03**

NOTICE OF VIOLATION

Technical Specification 6.8.1.b states, in part, that written procedures shall be implemented covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978.

Regulatory Guide 1.33, Appendix A, states, in part, that procedures shall be implemented covering the operation of safety-related boiling water reactor systems.

System Operating Procedure (SOP)-0034, "MSIV Sealing System (Positive Leakage Control)," Revision 5, Attachment 1, requires the position of Valve 1MSI*V84 to be closed and the position of valve 1MSI*V85 to be open after the valve lineup is completed.

Contrary to the above, on June 30, 1994, Valve 1MSI*V84 was found in the open position and Valve 1MSI*V85 was found in the closed position. The valve lineup was completed on June 26, 1994.

REASON FOR THE VIOLATION

Entergy Operations, Inc. (EOI) admits this violation and has determined that the most probable root cause for the mispositioned valves is personnel error.

An extensive review of performance data for inservice testing, leak rate testing, and instrument calibration procedures associated with valves 1MSI*V84 and 1MSI*V85, provided no evidence to suggest that the valves had been positioned incorrectly during these evolutions.

MSIV Sealing System valves 1MSI*V84 and 1MSI*V85 did not comply with System Operating Procedure (SOP)-0034 for correct valve position. The root cause for this event could not be determined; however, the most probable cause is personnel error.

CORRECTIVE STEPS THAT HAVE BEEN TAKEN AND THE RESULTS ACHIEVED

- A. The below actions were taken as an immediate response to this violation:
1. Valve 1MSI*V85 was sealed open and its position independently verified by operations personnel. The Division II portion of Surveillance Test Procedure (STP) 208-0601, "MSIV Position Leakage Control System Functional Test," was reperformed with satisfactory results.
 2. System Operating Procedure (SOP)-0034 was reperformed in its entirety to verify the system was in the correct standby lineup position. Valve 1MSI*V84 was closed and independently verified at that time.

3. An investigation into the cause of valves IMSI*V84 and IMSI*V85 being mispositioned was initiated via the RBS condition report process.

B. The below actions were taken as part of the investigation into this event:

1. SOP-0034 valve lineup procedure was reviewed to determine when the system lineup was last performed. Records indicated that the valve lineup was performed and independently verified by licensed reactor operators on June 26, 1994.
2. The performance dates for other procedures which may have manipulated these valves were also reviewed. In-service testing, leak rate testing, and instrument calibration procedures performed after the SOP lineup was completed were reviewed to determine if the valves could have been mispositioned while performing these processes.
 - a. Surveillance Test Procedure (STP)-208-3600, "Main Steam Isolation Valve and Penetration Leakage Control System Leakage Rate Test," was performed on June 26, 1994. This procedure did not require manipulation of valves IMSI*V84 and IMSI*V85.
 - b. Surveillance Test Procedure (STP)-208-6701, "MSIV Leakage Control Valve Operability," was performed on June 28, 1994. While portions of this procedure require IMSI*V84 to be opened and uncapped, the sections performed on this date did not.
 - c. Surveillance Test Procedure (STP)-208-4208 was last performed on July 10, 1994, with the 18 month performance completed on April 6, 1994. Since the valve lineups were completed after this date, it is not likely that the problem occurred during performance of this procedure.
 - d. Surveillance Test Procedure (STP)-208-3605, "Leak Rate Testing of Main Steam System Valves Sealed by MS-PLCS," (which does manipulate IMSI*V84 and IMSI*V85) was last performed on June 13, 1994. The valve lineup was completed after this time.
3. In addition to the surveillance procedures listed above, other references were checked to determine when the valve position may have been changed. The control room log, manipulated device log, and the hydro procedure were checked and no reference to operation of IMSI*V84 or IMSI*V85 was recorded.

4. The protective equipment tagging log was also reviewed. Although several clearances were put in place and subsequently cleared on components during this time frame, valves 1MSI*V84 and 1MSI*V85 were not included in those clearances. No clearances could be located which manipulated the two valves in question.
5. Interviews were conducted with system engineers working on the MSIV Positive Leakage Control System (LSV system), operators involved with IST procedure implementation, and system engineering support personnel performing LLRTs, as well as operators who performed the system lineups. No reason could be identified for the mispositioned valves.
6. In August/September of 1994, a unique training seminar was presented to Operations Department personnel. This two-day course was designed to help the operators be observant about abnormal conditions, alert about emerging failures, aware of conditions that are conducive to human error, and knowledgeable about techniques to reduce their own human errors.

The course introduced several effective human error reduction techniques which were designed to improve the quality and reliability of daily task performance.

CORRECTIVE STEPS THAT WILL BE TAKEN TO AVOID FURTHER VIOLATIONS

A review of current programs governing valve testing and manipulation did not identify any weaknesses in those areas. Therefore no programmatic deficiencies exist that would have contributed to this violation. No further actions are required.

Entergy Operations, Inc. will continue to implement initiatives to improve human performance. As discussed in previous correspondence to the staff, these initiatives allow increased focus on oversight, control of work activities, and personnel accountability.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

Full compliance has been achieved.