



*Entergy*

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**Rick J. King**  
Director  
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January 24, 1997

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
M/S P1-37  
Washington, DC 20555-0001

Subject: Reply to a Notice of Violation 50-458/96-015  
River Bend Station - Unit I  
License No. NPF-47  
Docket No. 50-458

File Nos.: G9.5, G15.4.1

RBG-43650  
RBF1-97-0028

Gentlemen:

Pursuant to the provisions of 10CFR2.201, attached is the Entergy Operations, Inc. response to the notice of violation described in NRC Inspection Report (IR) 96-015. An extension to the original due date of January 1, 1997 for this violation response was granted by Phil Harrell of the Region IV staff to January 24, 1997.

Our response to violation 50-458/9615-01 involving plant configuration control issues is addressed in Attachment A. Violation 50-458/9615-03 related to inservice testing vibration monitoring is addressed in Attachment B. This response also addresses our actions to resolve procedure concerns relating to the use of generic pump drawings in vibration monitoring procedures.

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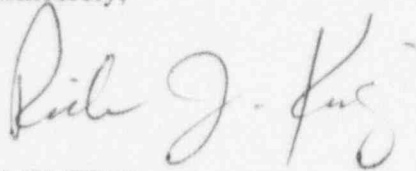
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Should you have any questions regarding the attached information, please contact Mr. David Lorring of my staff at (504) 381-4157.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rick J. King".

RJK/CRM  
attachment

cc: U. S. Nuclear Regulatory Commission  
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NRC Sr. Resident Inspector  
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David Wigginton  
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**ATTACHMENT A**  
**REPLY TO NOTICE OF VIOLATION 50-458/9615-01**

**Violation:**

Technical Specification 5.4.1.a states, in part, that written procedures shall be implemented covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, "Quality Assurance Program Requirements (Operations)," Revision 2, February 1978.

Item 4 of Appendix A to Regulatory Guide 1.33 recommends procedures for the operation of safety-related systems.

Contrary to the above, listed below are examples of where written procedures were not properly implemented:

1. System Operating Procedure SOP-0018, "Normal Service Water," Revision 17, Attachment 2 required, in part, that Valve 1SWP-V912 be throttled open two turns and lock sealed in place. On September 30, 1996, Procedure SOP-0018 was not properly implemented in that Valve 1SWP-V912 was not lock sealed.
2. Procedure SOP-0066, "Plant and Control Building Chilled Water," Revision 18, Attachment 4A required, in part, that Switch S1-HVKB03 be in the "NORMAL" position. On August 6, 1996, Procedure SOP-0066 was not properly implemented in that Switch S1-HVKB03 was in the "TEST" position.
3. Procedure SOP-0066, "Plant and Control Building Chilled Water," Revision 18, Section 4.2.2.11 required, in part, that the push-button switch for control room emergency Chiller 1HVK-CH1A be in the "RESET" position. On August 6, 1996, Procedure SOP-0066 was not properly implemented in that the push-button switch for control room emergency Chiller 1HVK-CH1A was in the "STOP" position.
4. Procedure SOP-0104, "Floor and Equipment Drains," Revision 15, Attachment 4E requires the control switch for Pump DFR-P3M to be in the "AUTO" position. On August 28, 1996, Procedure SOP-0104 was not properly implemented in that the control switch for Pump DFR-P3M was in the "OFF" position.

**Reasons for the Violation:**

Example 1: Throttle Valve Found Not Lock Sealed as Required

The reason for this violation was a transposition error made by the tagging official while copying information from the lineup procedure to the removal section of the clearance. The tagging official inadvertently left off the word "SEALED".

## **REPLY TO NOTICE OF VIOLATION 50-458/9615-01 (continued)**

### Example 2: Keylock Switch S1-HVKB03 Found in the "TEST" Position Instead of "NORMAL" as Required

The reason for this violation was inadequate evolution control. Additional information for this event can be found in Licensee Event Report (LER) 50-458/96-016-00.

### Example 3: Push-button Switch for Chiller 1HVK-CH1A Found Depressed Instead of Being Reset as Required.

The reason for this violation was procedure inadequacy. The procedure being used did not contain a specific restoration step for independent verification. This was caused by confusion between revisions of the procedure when a change notice was improperly implemented resulting in omission of the restoration section. This condition was discovered within the Limiting Condition for Operation (LCO) Completion Time and was not reportable.

### Example 4: Control Switch for Pump DFR-P3M Found in the "OFF" Position Instead of "AUTO" as Required.

The most probable cause for this mispositioning is human error. Investigation by the Plant Configuration Control Team could not conclusively determine when or how the control switch was mispositioned.

### **Corrective Actions That Have Been Taken:**

For each of the examples cited above, Condition Reports (CRs) were initiated to document the results of the investigation of these events, the root cause determinations, and the corrective actions that have or will be taken. Immediate actions for each of the cited examples included component realignment, crew briefs and training, and procedure clarifications.

River Bend management is taking a determined approach in driving each preventable plant error to a known conclusion. The Plant Configuration Control Team has been tasked with taking an aggressive approach in investigating and resolving all configuration issues. Programs that control configuration within the plant on a daily basis have been evaluated by the team. These programs are being revised to reflect the strong management expectation of zero preventable plant errors. Operations has taken a progressive approach to control future plant evolutions involving configuration changes.

Initiatives and corrective actions identified by RBS management and the Plant Configuration Control Team are described below.

## REPLY TO NOTICE OF VIOLATION 50-458/9615-01 (continued)

### Corrective Actions That Have Been Taken:

- The Manager - Operations emphasized operations department expectations to the operating crews for accurate implementation of configuration control processes.
- The Plant Configuration Control Team was re-focused by management, from the initial review of five specific configuration control events, to the broader range of all configuration control issues.
- The Plant Configuration Control Team provided awareness to plant personnel through the use of the plant-wide television system. Communications were focused on plant configuration, individual accountability and responsibility.
- The Plant Configuration Control Team developed a lesson plan, including an aggregate list of configuration control issues. This lesson plan was used to conduct in-shop lectures with all craft personnel. The purpose of the in-shop lectures was to provide an awareness of the methods available to be used to control plant configuration during the normal course of daily activities. Each individual was given a copy of the lesson plan for future reference.
- The Plant Configuration Control Team took advantage of a "Human Performance Day" to heighten awareness of the importance of plant configuration control by conducting in-shop discussions.
- Operations management discussed plant configuration control performance issues with all operations crews to ensure continuity between crews on the application of processes that impact plant configuration.
- The Manager - Operations met with operations crews to solicit their input into potential causes for the configuration control issues identified to date.
- The Manager - Operations held a special operations shift superintendent conference to challenge them to take ownership of configuration control and assure consistency between shifts on the implementation of standards.
- Procedure, ADM-0022, "Conduct of Operations", was revised to provide clarification to operations shift supervision on when System Operating Procedure (SOP) lineups are required to restore systems after maintenance and testing.
- Operations personnel participated in an instructional video developed to educate contractors on plant configuration control during outages.
- Operations personnel performed an alignment verification of all 120 volt breaker panels to verify correct breaker positions. This area was selected because of weaknesses identified by plant operators toward the end of 1996. This resulted in the locking of selected 120 volt breaker panels within the plant to prevent unauthorized manipulation.

## **REPLY TO NOTICE OF VIOLATION 50-458/9615-01 (continued)**

### **Corrective Actions That Will Be Taken to Avoid Further Violations:**

- The Manager - Operations will issue a directive, as an interim measure, which outlines strong controls that are being implemented to ensure plant configuration is maintained (2/3/97).
- Operations and maintenance departments will evaluate procedures governing processes that control configuration within the plant on a daily basis. The procedures will be strengthened and streamlined, as required (4/3/97).
- Operations will perform benchmarking activities of other plants for initiatives in the areas of human performance and plant configuration control (8/1/97).
- The Plant Configuration Control Team, with the support of River Bend management, will maintain an aggressive approach to monitor, track, and drive to resolution, configuration control issues until performance is improved.

### **Date When Full Compliance Will Be Achieved:**

EOI is in full compliance for each of the cited examples in this violation.

**ATTACHMENT B**  
**REPLY TO NOTICE OF VIOLATION 50-452/9615-03**

**Violation:**

Technical Specification 5.5.6 states, in part, that an inservice testing program shall be implemented.

Request for Relief PRR-003 partially implemented the inservice testing program and stated, in part, that the licensee obtain vibration velocity readings for testing of safety-related pumps in accordance with ASME/ANSI OMa-1988, Part 6, "Inservice Testing of Pumps in Light-Water Reactor Power Plants."

Section 4.6.4 of ASME/ANSI OMa-1988, Part 6 states that vibration velocity readings for vertical line shaft pumps shall be taken on the upper motor bearing housing in three orthogonal directions, one of which is the axial direction.

Surveillance Test Procedure STP-256-6303, "Standby Service Water A Loop Quarterly Pump and Valve Operability Test," Revision 8, partially implemented the inservice testing program. Sections 7.2.6 and 7.3.6 (for Pumps 1SWP-P2A and -P2C, respectively) of Procedure STP-256-6303 stated, in part, that the user obtain and record pump vibration readings at the locations indicated on Attachment 4. Attachment 4 to STP-256-6303 indicated that vibration velocity readings be taken on the upper motor bearing housing in three orthogonal directions, with one in the axial direction.

Contrary to the above, on October 10, 1996, the licensee did not properly implement the inservice testing program in accordance with ASME/ANSI OMa-1988, Part 6 and STP-256-6303 in that vibration velocity readings for Pumps 1SWP-P2A and -P2C were obtained on a lifting lug welded to the lower side of the pump motor covers.

**Reasons for the Violation:**

A formal root cause investigation was performed to identify reasons for this violation. Key causes for the deficiency are as follows:

*Lack of Personnel Accountability*

Between 1992 to mid-1996, a source of programmatic problems within the IST vibration program was created by a lack of personnel accountability that resulted in a program that was technically adequate but was not in strict code compliance. Verification activities performed during this time were not fully effective in identifying program and procedural weaknesses.



## REPLY TO NOTICE OF VIOLATION 50-458/9615-03 (continued)

### Inadequate Procedures

A poorly defined work process existed for the vibration program as it related to inservice testing. Procedure TSP-0050, "Vibration Program," did not accurately describe Code requirements of the IST program.

### Procedure Adherence

The IST surveillance procedures have been run quarterly with a requirement to take vibration measurements at locations designated in an attachment. Although these attachments were known not to match the actual vibration data acquisition points, a change notice was not written to correct these drawings. On at least two occasions this occurred. The first was with the identification of the Code noncompliance on October 10, 1996. Relief was pursued, but the attachments were not corrected. The second occurrence was on December 12, 1996, when another surveillance was performed with an incorrect vibration data acquisition attachment.

### Training

As personnel rotate into the vibration analyst position, vibration qualification training is required. Inservice testing vibration requirements per ASME/ANSI OMa-1988, Part 6 were not included in the vibration qualification training.

### **Corrective Actions That Have Been Taken:**

- The individual responsible for the vibration program was counseled and is no longer employed by Entergy.
- Specific training was provided for those individuals involved with IST surveillance testing on procedure adherence emphasizing that the vibration measurement drawings in the pump IST surveillance procedures must match the field locations. A procedure adherence training session was given to Plant Engineering personnel by the Manager - Plant Engineering. This training provided expectations for procedural adherence and the use of the change notice process.
- A walkdown was performed for each pump (29 total) in the IST program to verify correct vibration acquisition points for Code compliance.
- A relief request was submitted to the NRC to allow alternate vibration testing for the standby service water pumps and the emergency diesel fuel oil transfer pumps.



## **REPLY TO NOTICE OF VIOLATION 50-458/9615-03 (continued)**

### **Corrective Actions That Will Be Taken to Avoid Further Violations:**

- A review of the River Bend vibration program will be performed against ASME /ANSI OMa-1988, Part 6 vibration requirements.
- Program procedures will be revised to incorporate ASME/ANSI OMa-1988, Part 6 vibration requirements as well as assuring that a process is in place for communicating IST Program changes to other affected departments.
- A specific training qualification guide will be developed and completed for vibration engineers on the ASME Section XI and ASME/ANSI OMa-1988, Part 6 vibration requirements.
- An engineering guide will be developed that includes vibration measurement methodology, vibration measurement limits and information on equipment usage.
- Prior to the next performance of each vibration surveillance procedure, the vibration data acquisition location attachments to the procedure will be verified to be correct.

The actions stated above should be completed by April 30, 1997.

### **Date When Full Compliance Will Be Achieved:**

EOI will be in full compliance when the Pump Relief Request for alternate vibration testing on the standby service water and emergency diesel fuel oil transfer pumps is approved by the NRC and incorporated into the River Bend IST Pump and Valve Plan.