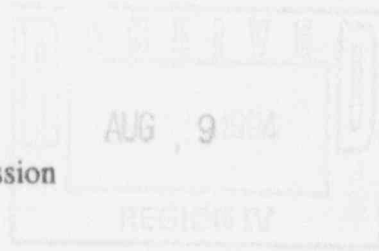


August 4, 1994

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



Subject: Reply to NRC Notices of Violation and  
Notice of Deviation IR 94-12  
River Bend Station - Unit 1/Docket No. 50-158

File No.: G9.5, G15.4.1

RBG-40782

Gentlemen:

Pursuant 10CFR2.201, please find attached Entergy Operation's response to two notices of violation and one notice of deviation described in NRC Inspection Report (IR) 94-12. The inspection was performed by Messrs. Ward Smith and Chris Skinner April 24 through June 4, 1994.

In the inspection report, you raised concerns regarding procedure inadequacies, compliance with the radiation protection plan, and implementation of commitments made to the NRC. River Bend Station (RBS) management understands the significance of the issues that you have identified and, as communicated previously, has initiatives underway which will result in improvements in these key areas. We are confident that the actions we have implemented will effectively resolve your concerns.

The focal point of this improvement effort is the Long Term Performance Improvement Plan (LTPIP) which will be completed over a three year period. The LTPIP includes initiatives to address the issues identified in your inspection report, in that they include programs to improve the overall quality and effectiveness of site procedures and improve human performance. Although these initiatives will not immediately resolve all issues, the programs that are beginning to address your concerns and improvements have been noted.

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Reply to NRC Notices of Violation  
and a Notice of Deviation IR 94-12  
August 4, 1994  
RBG-40782  
Page 2 of 2

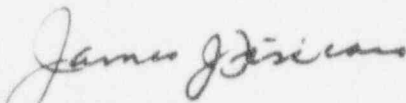
Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

Regarding the failure to comply with the radiation protection program, Entergy Operations recognizes the importance of radiological work controls and understands the significance of a failure to comply with program requirements. Again, the LTPIP includes initiatives which are expected to result in improvements in this important area.

In summary, RBS management shares your concerns about these issues and has taken immediate corrective measures and initiated long term actions to ensure resolution. In addition, as described above, we have implemented long term corrective actions that will resolve the underlying causes and provide permanent improvement in the areas of procedure quality and human performance.

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

Sincerely,



James J. Fisicaro  
Director - Nuclear Safety

JJF/jr  
enclosure

xc: U.S. Nuclear Regulatory Commission, Region IV  
NRC Sr. Resident Inspector

## ATTACHMENT 1

### REPLY TO NOTICE OF VIOLATION

Note: For the sake of clarity, each of the five examples will be treated separately.

#### VIOLATION 9412-01 (EXAMPLE 1)

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

Contrary to the above, a procedure was not appropriately maintained in that Surveillance Test Procedure (STP)-256-3302, "Division II Standby Service Water Valve Operability Test," Revision 7, contained an ambiguous note, which should have been a procedure step, prior to Step 7.18.1 and the ambiguity resulted in an inadvertent engineered safety feature actuation.

#### REASON FOR THE VIOLATION

Entergy Operations admits this example of the violation and believes that the root cause of the condition was that STP-256-3302 was not appropriately human factored because the procedure used terminology which suggested that the initial conditions for the test required that the Standby Service Water system be in a "standby" alignment when, in fact, the system in question should have been operating in a specific configuration.

Specifically, the Note indicated, in part, that if a certain other STP was not to be performed, then "both divisions of Standby Service Water System shall be lined up for *Manual Operation* per SOP-0042." Given that a later step of the STP included a requirement to "Start a Division II Standby Service Water Pump (if not already running)," the personnel performing this procedure interpreted the Note to mean that the SSW system should be aligned in a standby configuration with the pumps secured. In fact, the term "Manual Operation" has a specific meaning in the context of System Operating Procedure SOP-0042, "Standby Service Water System." In that procedure "Manual Operation" means that the SSW system is isolated from the Normal Service Water system with pumps operating.

If an SSW pump had been running at the start of this procedure in accordance with SOP-0042, the ESF actuation would not have occurred.

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

STP-256-3302 has been revised to include proper step sequencing and clear operating instructions.

Operating crews have been briefed on this event and the lessons learned.

### CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

No additional specific corrective action is required.

Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend Station is in full compliance. However, long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## **VIOLATION 9412-01 (EXAMPLE 2)**

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

Contrary to the above, a procedure was not appropriately maintained in that STP-302-1604, "Division III HPCS Bus Undervoltage 18 Month Channel Calibration," Revision 7, Step 7.4.6, required lifting a lead from a terminal containing two leads without specifying what to do with the second lead. Consequently, both leads were lifted and taped together, resulting in an unexpected Division III bus trip and automatic start of the Division III diesel generator.

### **REASON FOR VIOLATION**

Entergy Operations admits this example of the violation and believes that the root cause of the condition was inadequate technical review of a 1986 change to STP-302-1604. It should be noted that the resulting Division III bus trip did not cause an automatic start of the Division III diesel generator because it was in the maintenance mode.

Through Revision 3 of STP-302-1604, the test was performed by lifting lead A30, which was a combination of two wires, one of which was to defeat the trip function ( RSE8 ) and the other was the trip lead from the auxiliary cubicle to the breaker cubicle. This method proved to be inadequate because it would not prevent the tripping of auxiliary cubicle breaker (ACB)-04. As a result, temporary change notice (TCN) 86-1759 was written against Revision 3 of the STP to require that the technicians lift wire 30.

TCN-86-1759, written in November 1986, appears to be inadequate because it does not distinguish between the two wires (Wires 101A12 and RSE8) that are terminated at terminal A30 in ACB-102. Specifically, step 7.6.6 of TCN 86-1759 to Revision 3 of the STP incorporates the requirement that the technician "Lift Wire 30 from terminal block A30 in ACB-102 to prevent tripping ACB-04." This procedural step was incorporated in Revision 4 to the procedure and has existed essentially unchanged since that time.

Therefore, the root cause of the inadequate procedure appears to be inadequate technical review of TCN 86-1759. A contributing factor in this event was inadequate technical review of Revisions 4 through 7 of the STP.

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

The two wires landed at terminal block A30 in ACB-102 have been assigned specific identifiers.

Change Notice 94-1160 was written to address and correct the inadequacies identified in STP-302-1604.

### CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

No additional specific corrective action is required.

Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend Station is in full compliance. However, long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.



### **VIOLATION 9412-01 (EXAMPLE 3)**

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

Contrary to the above, a procedure was not appropriately established in that safety-related, air-operated valve SWP\*AOV51B was gagged shut by applying a nitrogen pressure source and no procedural controls were implemented to provide overpressure protection for the valve. As a result, the nitrogen pressure regulator drifted to a pressure of 60 psig, which overpressurized the air operator above the manufacturer's recommended limit of 50 psig.

### **REASON FOR THE VIOLATION**

Entergy Operations admits this example of the violation and believes that the root cause of the condition was that neither personnel nor procedures recognized the potential for overpressurizing components while the temporary motive gas supply was installed and thus did not specify that measures be taken to prevent overpressurizing the SWP\*AOV51B valve operator.

Administrative Procedure ADM-0027, "Protective Tagging," includes, at Step 7.2.3, a section entitled "Valve Practices" which provides guidance on the use of air-operated valves for equipment isolation. The procedure indicates that the use of air-operated valves as a clearance boundary should be avoided if possible and provides guidance on precautions to be observed if such a valve must be used as a clearance boundary.

Guidance is included in Step 7.2.3 regarding the use of an air-operated valve that cannot be gagged or blocked in position. Specifically, the step indicates that plant air may be used to maintain the valve in the desired position provided that special precautions are stated in the applicable maintenance work order (MWO) package. These precautions include briefing workers on the risk, establishing communications with the Control Room and tagging the supply air header isolation valves open.

Although the existing guidance appears to be appropriate, it assumes that the normal plant air system will be used to supply motive gas to the valve. It does not specifically recognize that temporary motive gas sources can be and are used occasionally to maintain an air-operated valve in the closed position. Since the use of a temporary motive gas supply creates some potential for overpressurizing components, additional precautions are warranted for this condition and should have been included in the work instructions.

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

Immediate steps were taken by Operations to reduce the actuator pressure from 60 psig to 25 psig.

Valve 1SWP\*V3319 was added downstream of valve 1SWP\*AOV51B to eliminate the need for these valves to act as isolation valves. Valve 1SWP\*V3319 is a manual valve and will eliminate the need for connecting regulated nitrogen to the actuator of valve 1SWP\*AOV51B, thereby eliminating any chance for repetition of this specific event. A similar modification was made to the other train.

### CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

An engineering evaluation concluded that damage to valve 1SWP\*AOV51B was not likely because of this event. However, to be conservative, MWO Request 201040 was initiated to completely disassemble and inspect valve 1SWP\*AOV51B and its actuator for any signs of damage. This will be completed by September 28, 1994.

Operations will evaluate the processes in place to establish appropriate controls for temporary plant conditions. This evaluation will be completed by October 1, 1994. Subsequent corrective action will be dependent on the results of this evaluation.

Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend Station is in full compliance. However, long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.



#### **VIOLATION 9412-01 (EXAMPLE 4)**

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

Contrary to the above, a procedure was not maintained in that Surveillance Test Procedure STP-403-0201 did not provide instructions for placing the standby gas treatment system in standby after completion of the surveillance test.

#### **REASON FOR THE VIOLATION**

Entergy Operations admits this example of the violation and believes that the root cause of the condition was that, although it was intended to be performed in conjunction with other procedures, STP-403-0201, "Annulus Mixing System Monthly Operating Test," did not include steps which linked it to those procedures. In the absence of such links, STP-403-0201 was not a "stand-alone" document since it did not include certain initiating or restoration steps.

STP-403-0201 is performed concurrently with either STP-257-0201 (A train) or -0202 (B train), "Standby Gas Treatment System Filter Train A(B) Monthly Operability Test." These tests are usually performed concurrently since the annulus is normally used as a source of supply air for the standby gas treatment system (SBGTS) test.

STP-403-0201 should have included all of the necessary procedural steps or, conversely, clear precautions and limitations which specified that the procedure be performed only in conjunction with the SBGTS monthly operating test.

#### **CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED**

STP-403-0201 has been revised to provide the necessary instruction to ensure that the decay heat removal fan has been started and that the SBGTS is properly placed in standby after completion of the test.

#### **CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS**

No additional specific corrective action is required.

Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

River Bend Station is in full compliance. However, long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## **VIOLATION 9412-01 (EXAMPLE 5)**

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

Contrary to the above, a procedure was not appropriately maintained in that preventive maintenance procedure (PMP)-1001, "Preventive Maintenance of Elgar Power Line Conditioners," Revision 5, Step 8.4.5, was not achievable because the installed circuit configuration was not considered when instructions were provided for insulation resistance testing. As a result, unsatisfactory results were obtained, requiring a change to the procedure.

### **REASON FOR THE VIOLATION**

Entergy Operations admits this example of the violation and believes that the root cause of the condition was inadequate technical review of Revision 5 of PMP-1001. Either the engineer that prepared Revision 5 or the technical reviewer should have identified the deficiencies in the procedure revision before the STP was approved.

### **CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED**

PMP-1001 has been revised to correct the identified deficiencies. On May 20, the power line conditioners for reactor protective system channels A&B were successfully tested using the revised procedure.

### **CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS**

No additional specific corrective action is required.

Regarding RBS procedure quality, interim procedure improvement initiatives are being developed as a subset of the long term Procedures Upgrade Project (PUP) Plan to provide an immediate focus on improvement of site procedures. The interim improvement initiatives focus on those procedures most important to continued safe operation and establish the foundation for implementation of the PUP. Both the PUP and the interim procedure improvement initiative will include activities which will verify implementation of regulatory commitments.

**DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED**

River Bend Station is in full compliance. However, long term corrective actions are being implemented and will continue to address problems associated with the adequacy of RBS site procedures. These are long term plans and will be completed in accordance with the schedules outlined in the LTPIP.

## ATTACHMENT 2

### REPLY TO NOTICE OF DEVIATION

#### DEVIATION 458/9412-02

During an NRC inspection conducted on April 24 through June 4, 1994, a deviation of your Updated Safety Analysis Report was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C, the deviation is listed below:

- A. Update Safety Analysis Report, Revision 4, Section 9.1.2.3.3 states, "Administrative procedures require periodic sampling of the leak test system on the spent fuel pool liner. Little or no leakage is expected during normal operations."

Contrary to the above, from initial licensing on November 20, 1985, until May 20, 1994, there was no documentation or other evidence to show that periodic sampling of the leak test system on the spent fuel pool liner had been implemented.

#### REASON FOR THE DEVIATION

Entergy Operations admits this deviation and believes that the root cause was personnel error on the part of the individuals who were responsible for the initial development of certain station operating procedures.

A search of the commitment database revealed that tracking item 01017 specified the requirement to sample the leak test system on the spent fuel pool liner to identify any leakage through the liner. Documentation associated with the tracking item further indicated that the commitment was implemented by two River Bend Station procedures: general operating procedure (GOP)-0001, "Plant Startup," and administrative procedure (ADM)-0047, "Leakage Reduction and Monitoring Program." The database indicated that these commitments had been incorporated in these procedures on December 2, 1985. However, neither the commitment text, the commitment number, nor the associated FSAR section were referenced by either of the current procedures or an earlier revision.

It appears that this condition was caused initially by an oversight by the individuals responsible for the initial procedure writing effort since they failed to incorporate the commitment requirements or to reference commitment 01017 in either of the two procedures.

A contributing cause was identified in that, despite several revisions to GOP-0001 and ADM-0047, the individuals revising the procedures failed to perform an adequate review of the commitment database to ensure that commitments were appropriately implemented. Such a review is required by RBNP-0001.

#### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

Operations section procedure (OSP)-0029, "Daily Log Report; Reactor Auxiliary, and Fuel Buildings," has been revised to require a leak check of the spent fuel pool liner on a monthly basis. This is an interim measure which is intended to develop a baseline from which to establish an appropriate long-term sampling periodicity.

ADM-0047 has been revised to include a reference to Commitment 01017 and a current description of the leak test methodology and required frequency.

Commitment 01017 has been revised such that it references the correct implementing document.

#### CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER DEVIATIONS

To ensure that no similar conditions exist, both the Procedure Upgrade Program and the interim procedure improvement initiative (extensively discussed in previous correspondence) will include activities that will verify implementation of regulatory commitments. As elements of the LTPIP, these activities will be completed over a three year period.

#### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend is in full compliance. Additional assurance of full compliance will be gained through the Procedure Upgrade Program and the interim procedure improvement initiative as discussed above.



## ATTACHMENT 3

### REPLY TO NOTICE OF VIOLATION

#### VIOLATION 458/9412-03

Technical Specification 6.11.1 states, in part, that procedures for personnel radiation protection shall be adhered to for all operations involving personnel radiation exposure.

River Bend Nuclear Procedure (RBNP)-024, "Radiation Protection Plan," Revision 4, Section 4.9.4, requires radiation workers to adhere to the radiological work permit requirements.

Contrary to the above, on May 11, 1994, a contract quality control inspector failed to adhere to the requirements of procedure RBNP-024 in that the inspector logged on radiological work permit 94-7007 and proceeded to enter the radiologically controlled area without reading and understanding the requirements delineated by the permit.

#### REASON FOR THE VIOLATION

Entergy Operations admits this violation and believes that the root cause of the event was personnel error by the contract quality control inspector. The contract inspector was knowledgeable of station requirements for accessing a radiological controlled area (RCA) but failed to comply with procedural requirements or management expectations for radiation workers.

On May 11, 1994, a contract quality control (QC) inspector logged onto the self-access computer under radiation work permit (RWP) 94-7007, without reading his RWP requirements, and entered the RCA. This action was in direct violation with the radiation protection responsibilities of workers. RBNP-0024, "Radiation Protection Plan," requires workers to comply with the requirements and instructions given in the RWP. This requirement is stressed in general employee training.

During a subsequent interview, the QC inspector indicated that he was aware that logging in on the self-access computer served as an acknowledgment that he had read and understood the RWP requirements. The QC inspector had become accustomed to entering the RCA with other radiation workers and reviewing the applicable RWP at the same time that they did. However, in this instance the inspector logged on to the RWP but did not review it.

### CORRECTIVE STEPS TAKEN AND RESULTS ACHIEVED

The contract QC inspector was terminated.

QC inspectors were given training on the importance of reading RWPs before logging onto the self access computer.

A self accessing survey was conducted by quality assurance personnel; all individuals surveyed had read and were generally knowledgeable of their RWPs.

### CORRECTIVE STEPS TO BE TAKEN TO AVOID FURTHER VIOLATIONS

To emphasize the importance of compliance with radiation protection plan requirements, steps will be taken to reinforce programmatic requirements and management expectations regarding self-accessing into the RCA. This will be completed by September 30, 1994.

### DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

River Bend Station is in full compliance.