UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005

December 19, 2002

EA-02-036

Paul D. Hinnenkamp, Vice President - Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

SUBJECT: RIVER BEND - NRC SUPPLEMENTAL INSPECTION REPORT 50-458/02-08

Dear Mr. Hinnenkamp:

On November 25 through 26, 2002, the NRC conducted a supplemental inspection at your River Bend Station. An exit meeting was held on site on November 26, 2002. The enclosed report documents the inspection findings which were discussed with you and other members of your staff.

The NRC issued a White inspection finding and Notice of Violation in Inspection Report 50-458/02-05. This finding involved the failure to meet the requirements of 10 CFR 50.54(q) in that the licensee did not follow and maintain emergency plans and procedures which met the standards in 10 CFR 50.47(b)(7).

The performance weakness associated with this finding involved a failure of the emergency response organization to ensure that members of the public in the facility owner controlled area were aware of actions that would be required of them in the event of an emergency at the River Bend Station.

This supplemental inspection was conducted to provide assurance that the root and contributing causes of the White inspection finding are understood and to provide assurance that the corrective actions are sufficient to address the root and contributing causes and prevent recurrence of the problems. Detailed observations, assessments, and conclusions of the inspection are presented in the enclosed inspection report.

The inspection concluded that the root causes of the finding were adequately defined and understood, and the corrective actions resulting from the evaluations of the finding appropriately addressed the identified causes. However, some weaknesses were noted in the root cause evaluation. Details of those weaknesses are discussed in the enclosed inspection report. The weaknesses did not invalidate the evaluations because the corrective actions implemented as a result of these evaluations were appropriate for all causes identified by both your staff and the NRC.

As stated in our October 8, 2002 letter to you, this inspection also reviewed your 10 CFR 50.54(q) evaluations to determine if we should recharacterize the noncited violation issued in

our July 31, 2002 letter, which stated that changes in your notification process and procedures had resulted in a decrease in the effectiveness of your emergency plan. Based on our review of the root cause report, related condition reports and associated 10 CFR 50.54(q) evaluations, as well as discussions with your staff, our conclusion remains that a decrease in the effectiveness of the Emergency Plan did occur. Your staff changed the onsite evacuation notification process and procedures, resulting in a potential for delaying evacuation notifications to members of the public inside the owner controlled area. Even though we have concluded that a decrease in the effectiveness of your Emergency Plan did occur, we also concluded that your evacuation notification process remained adequate. As such, River Bend Station continued to meet the planning standard 10 CFR 50.47(b)(10). Your recent corrective actions removed the notification process change, and therefore submittal of the changes to Emergency Plan for NRC approval is not required.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html (the Public Electronic Reading Room).

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,

***//RA//***

Dwight D. Chamberlain, Director
Division of Reactor Safety

Docket: 50-458
License: NPF-47

Enclosure:
NRC Inspection Report
50-458/02-08

cc w/enclosure:
Executive Vice President and
Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Vice President
Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

General Manager
Plant Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

Director - Nuclear Safety
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

Wise, Carter, Child & Caraway
P.O. Box 651
Jackson, Mississippi 39205

Mark J. Wetterhahn, Esq.
Winston & Strawn
1401 L Street, N.W.
Washington, DC 20005-3502

Manager - Licensing
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

The Honorable Richard P. Leyoub
Attorney General
Department of Justice
State of Louisiana
P.O. Box 94005
Baton Rouge, Louisiana 70804-9005

H. Anne Plettinger
3456 Villa Rose Drive
Baton Rouge, Louisiana 70806

President
West Feliciana Parish Police Jury
P.O. Box 1921
St. Francisville, Louisiana 70775

Michael E. Henry, State Liaison Officer
Department of Environmental Quality
P.O. Box 82135
Baton Rouge, Louisiana 70884-2135

Brian Almon
Public Utility Commission
William B. Travis Building
P.O. Box 13326
1701 North Congress Avenue
Austin, Texas 78701-3326

Technological Services
Branch Chief
FEMA Region VI
800 North Loop 288
Federal Regional Center
Denton, Texas 76201-3698

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

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|---|---|
| Docket: | 50-458 |
| License: | NPF-47 |
| Report: | 50-458/02-08 |
| Licensee: | Entergy Operations, Inc. |
| Facility: | River Bend Station |
| Location: | 5485 U.S. Highway 61<br>St. Francisville, Louisiana |
| Dates: | November 25 to 26, 2002 |
| Inspector: | R.E. Lantz, Senior Emergency Preparedness Inspector |
| Approved By: | T.W. Pruett, Chief, Plant Support Branch |
| ATTACHMENT: | Supplemental Information |

# SUMMARY OF FINDINGS

River Bend Station
NRC Inspection Report 50-458/02-08

IR 05000458-02-08; on 11/25-26/2002; Entergy Operations, Inc; River Bend Station. Supplemental Inspection for one White finding in the emergency preparedness cornerstone.

The inspection was conducted by a senior emergency preparedness inspector. The significance of most findings is indicated by their color (Green, White, Yellow, or Red) using Inspection Manual Chapter 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply are indicated by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at http://www.nrc.gov/NRR/OVERSIGHT/index.html.

## A. Inspector Identified Findings

**Cornerstone: Emergency Preparedness**

The NRC performed this supplemental inspection to assess the licensee's evaluation associated with the failure to meet the requirements of 10 CFR 50.54(q), in that the licensee did not follow and maintain emergency plans and procedures which meet the standards in 10 CFR 50.47(b)(7). This performance issue was previously characterized as having low to moderate risk significance (White) in NRC Inspection Report 50-458/2002-05. During this supplemental inspection, performed in accordance with Inspection Procedure 95001, the inspector noted that although some weaknesses in the root cause analysis were apparent, the licensee performed a comprehensive evaluation of the White finding. The licensee's evaluation identified the primary root causes of the performance issue to be inadequate implementation of the public information program and inadequate 10 CFR 50.54(q) evaluations.

Given the licensee's acceptable performance in addressing the issue, the White finding associated with this issue will only be considered in assessing plant performance for a total of four quarters in accordance with the guidance in Inspection Manual Chapter 0305, "Operating Reactor Assessment Program." The issue was identified in the first quarter of 2002, therefore it will no longer be considered in assessing plant performance after the fourth quarter of 2002.

Report Details

## 01 INSPECTION SCOPE

The NRC performed this supplemental inspection to assess the licensee's evaluation associated with the failure to meet the requirements of 10 CFR 50.54(q), in that the licensee did not follow and maintain emergency plans and procedures which meet the standards in 10 CFR 50.47(b)(7). This performance issue was previously characterized as having low to moderate risk significance (White) in NRC Inspection Report 50-458/2002-05 and is related to the emergency preparedness cornerstone in the reactor safety strategic performance area.

## 02 EVALUATION OF INSPECTION REQUIREMENTS

### 02.01 Problem Identification

a. Determination of who (i.e., licensee, self-revealing, or NRC) identified the issue and under what conditions.

The NRC identified the issue during an emergency preparedness inspection in January, 2002. On March 20, 2002, the NRC presented its preliminary findings in a telephonic exit meeting with the facility. On June 3, 2002, a Regulatory Conference was held at the NRC Region IV offices with River Bend Station and Entergy representatives. On July 31, 2002, the NRC issued the final significance determination of White for the finding.

b. Determination of how long the issue existed, and prior opportunities for identification.

The issue had existed for an extended period of time, beginning in 1985 when changes of usage of the facility owner controlled area (OCA) by members of the public occurred. The licensee performed a search of their condition report database and found no directly related condition report, although generic similarities of regulation misapplication were identified. One other prior recent industry experience was related to this issue and was evaluated by the licensee in December 2001 in licensee condition report CR-RBS-2001-01713. The evaluation of this condition report was narrowly focused on the ability to evacuate members of the public from the OCA, and did not address providing members of the public with information concerning their role during an emergency at River Bend Station.

c. Determination of the plant-specific risk consequences (as applicable) and compliance concerns associated with the issue.

This issue does not affect core damage frequency but is a significant issue for protection of public health and safety in response to a radiological accident at the facility. Compliance concerns were accurately and thoroughly addressed in the root cause analysis.

02.02 Root Cause and Extent of Condition Evaluation

a. Evaluation of method(s) used to identify root cause(s) and contributing cause(s).

The licensee utilized Barrier and Change Analysis techniques, and the TapRoot evaluation process to develop the root causes and contributing causes. These methodologies are generally accepted as standard methods and were adequately utilized for this finding.

The root cause analysis identified two root causes. The first was that 10 CFR 50.54(q) evaluations were inadequate or not performed. The second was that the public information program was implemented incorrectly or incompletely. Two contributing causes were also identified. The first was emergency planning staff personnel had inconsistent understandings of the regulatory term “decrease in effectiveness of the Emergency Plan.” The second was that training for personnel performing 10 CFR 50.54(q) evaluations was inadequate.

The licensee conducted a review of other emergency preparedness requirements, to determine if other regulations were similarly misinterpreted, potentially resulting in other ineffective programs. The result of that review did not identify any additional instances of incorrect or incomplete program implementation in emergency preparedness programs.

The inspector concluded that the licensee effectively utilized accepted root cause determination methods and adequately identified the root causes for this finding.

b. Level of detail of the root cause evaluation.

In general, the level of detail of the root cause evaluation was adequate, however some areas would have benefitted from a more thorough analysis. For example, the root cause report did not address the extent to which a change in the site evacuation process may have extended the time needed to complete notifications to members of the public. Other areas of the root cause report stated that some impact to the evacuation time may have occurred, but did not attempt to quantify that affect.

The inspector determined that the argument presented in the root cause report for the justification that any change in evacuation time estimates would not constitute a decrease in effectiveness of the Emergency Plan is not applicable for changes to on-site evacuation methods that result in increases to on-site evacuation times. NRC Regulatory Information Summary 2001-16, “Updating of Evacuation Time Estimates,” acknowledged that increases in evacuation time estimates for members of the public in the plume exposure pathway emergency planning zone does not constitute a reduction in the effectiveness of the facility Emergency Plan, however it does not address changes to facility procedures that result in increased evacuation notification times for members of the public in the facility owner controlled area. References to the Atomic Safety and Licensing Appeal Board (ASLAB) findings in 1990 with regard to Seabrook Station (32 NRC 395 and 31 NRC 197), and in 1998 (47 NRC 390) and 1991 (33 NRC 399) do not address increases in established notification times of on-site members of

the public due to facility procedure changes, but do confirm that an absolute minimum evacuation time has not been established in the regulations.

c. Consideration of prior occurrences of the problem and knowledge of prior operating experience.

The licensee searched historical records of the licensing bases documentation and condition reports. Searches were made using key words and variations of 50.54, Emergency Plan, and Emergency Plan Implementing Procedure. The search resulted in 9 condition reports that had some relation to the identified root cause, 4 of which were related to inadequacies of the 10CFR50.54(q) evaluation process. None of the prior records specifically addressed providing information to members of the public in the OCA, with the exception of the recent finding from industry events which was documented and reviewed in CR-RBS-2001-01713. As stated above, the licensee's review of this condition report was narrowly focused and missed an opportunity to identify weaknesses in the public information program.

d. Consideration of potential common cause(s) and extent of condition of the problem.

The licensee identified the root causes of the problem to be inadequate 10 CFR 50.54(q) evaluations and inadequate implementation of the public information program. Contributing causes were identified as a lack of understanding among the Emergency Planning staff about what constitutes a decrease in effectiveness of the emergency plan, and a need for training staff members on the proper conduct of a 10 CFR 50.54(q) evaluation program.

The licensee conducted a review of other emergency preparedness regulations to determine if a lack of understanding of those regulations had potentially created weaknesses in other licensee programs. This review was not documented thoroughly in the root cause analysis report, however, the inspector concluded the review was adequate based on interviews with members of the emergency preparedness staff.

The extent of condition review for the White finding was adequate, however, it lacked rigor in several respects and did not capture all of the licensee's efforts. The licensee's industry survey that was done in response to the preliminary Yellow and White findings, issued on April 18, 2002, in NRC Inspection Report 50-458/02-05, had a stated objective to benchmark processes used at other facilities for both evacuation of the public, as well as providing information to those members of the public in the OCA. The inspector determined that the specifics of the survey did not solicit information regarding the supplying of information to members of the public in the OCA (how they would be notified and what their initial actions should be.)

The inspector concluded that the licensee's evaluation of potential common cause(s) and extent of condition of the problem was adequate.

02.03 Corrective Actions

a. Appropriateness of corrective actions

The licensee took extensive immediate corrective actions, which included:

1) a detailed regulatory basis review for OCA evacuation and public information,

2) two OCA evacuation drills,

3) working group meetings with Licensing, Security, and Emergency Preparedness representatives to review regulatory requirements, review and revise procedures, and train appropriate personnel,

4) additional River Bend Station entrance signs, assembly area signs, and other postings and visitor brochures and handouts,

5) a revision to the Emergency Plan to include public information for members of the public in the OCA, and

6) continued suspension of use of some public facilities in the River Bend Station OCA due to security and emergency planning concerns.

The inspector determined the immediate corrective actions were appropriate and adequate to address the immediate safety concern of a failure to adequately inform members of the public in the OCA of actions they would take and how they would be notified in the event of an emergency at River Bend Station. The inspector determined that all immediate corrective actions had been completed.

The licensee's long-term corrective actions included:

1) procedure changes to support actions to identify and evacuate members of the public from the OCA at the Alert emergency classification,

2) reinstatement and revision of procedure EIP-2-026, "Evacuation, Personnel Accountability, and Search and Rescue," to make it more accessible and useable (Revisions included additional details for security officer conduct of an evacuation),

3) development of annual site access training for the West Feliciana Community Development Foundation members and non-badged cafeteria employees, and generically for all individuals who are not required to access the protected area,

4) scheduling of a quarterly task to verify visitor brochures and evacuation information were being appropriately distributed as required by revised procedures,

5) revision of the 10 CFR 50.54(q) process, requiring a second review of all 10 CFR 50.54(q) evaluations by licensing, and providing training to Emergency

Preparedness staff on implementation of the new 10 CFR 50.54(q) evaluation process,

6) development of a policy guide for public use of the OCA,

7) scheduling of formal training of the emergency response organization on completed and planned emergency plan and implementing procedure changes, and

8) addition of vehicle mounted public address systems to two roving patrol security vehicles for use during evacuation notifications.

The inspector determined that the corrective actions were responsive to the root and contributing causes identified by the licensee.

b. Prioritization of corrective actions.

The inspector concluded that the corrective actions were properly prioritized. Actions of an immediate nature were given the highest priority. A completion date and a responsible manager were assigned for each corrective action.

c. Establishment of a schedule for implementing and completing the corrective actions.

The licensee's evaluation established an aggressive schedule based on the safety significance for the completion of the long-term corrective actions. The majority of the identified corrective actions had been completed prior to this supplemental inspection. Training for the Emergency Preparedness staff on the revised 10 CFR 50.54(q) evaluation process, and a final policy for long term usage of OCA facilities by members of the public, are scheduled for completion early in 2003. The inspector concluded that this schedule was acceptable.

d. Establishment of quantitative or qualitative measures of success for determining the effectiveness of the corrective actions to prevent recurrence.

The licensee scheduled a May 2003 effectiveness review of the quality of 10 CFR 50.54(q) evaluations as Corrective Action 7 to CR-RBS-2002-00183. Also, Emergency Preparedness recurring tasks were added to verify that OCA public evacuation information was being maintained and distributed quarterly, and the site public information program signs and postings were surveyed annually.

## 03 MANAGEMENT MEETINGS

Exit Meeting Summary

The inspector conducted an exit meeting to present the inspection findings to Mr. Hinnenkamp, Vice President, Operations, and other members of site management at the conclusion of the on-site inspection effort on November 26, 2002.

The inspector asked the licensee's management whether any of the material they had been presented during the inspection was proprietary. None was identified.

ATTACHMENT

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

B. Allen, Emergency Preparedness Manager
L. Ballard, Supervisor, Quality
R. Biggs, Coordinator, Safety and Regulatory Affairs
C. Bush, Assistant Manager, Operations
J. Fowler, Manager, Quality Assurance
P. Hinnenkamp, Vice President-Operations
K. Huffstatler, Technical Specialist, Licensing
J. Hurst, Senior Emergency Planner
J. Holmes, Manager, Technical Support
A. James, Security Superintendent
J. Leavines, Manager, Nuclear Safety and Regulatory Affairs
D. Mims, General Manager, Plant Operations
W. Trudell, Manager, Corrective Action and Assessment
T. Trepanier, Assistant General Manager, Plant Operations

ITEMS OPENED AND CLOSED

Opened

None

Closed

| | | |
|---|---|---|
| 50-458/0205-01 | NOV | Licensee failed to provide emergency planning information to members of the public using owner-controlled area |

DOCUMENTS REVIEWED

Condition Reports

| | |
|---|---|
| CR-RBS-2001-01713 | LO-OPX-2001-00243 |
| CR-RBS-2002-0183 | LO-RLO-2002-0057 |

Procedures

EIP-2-026, “Evacuation, Personnel Accountability, and Search and Rescue,” Revisions 12-14

RBNP-075, “10 CFR 50.54 Evaluations,” Revisions 7 and 8

River Bend Station Emergency Plan, Revisions 24 and 25

Other Documents

Root Cause Analysis Report, “Evacuation of the Owner Controlled Area,” November 22, 2002

2002 Emergency Preparedness Recurring Tasks

EP Lesson Plan LEC-EP-115.09, “Emergency Response Organization Tabletop Training”

EP Desktop Guide, Attachment 25, “Public Information Program,” Revision 4

EP Desktop Guide, Attachment 43, “Public Use of the Owner Controlled Area,” Revision 4

River Bend OCA Assessment, October 31, 2002, by Mr. Curtley Hayes

River Bend Station Quality Assurance Surveillance Report, QS-2002-RBS-027, November 21, 2002

Drill Evaluation Reports, OCA Evacuation, January 16 and April 23, 2002

LIST OF ACRONYMS AND INITIALS USED

| | |
|---|---|
| ASLAB | Atomic Safety and Licensing Appeal Board |
| CFR | Code of Federal Regulations |
| CR | condition report |
| CR-RBS | River Bend Station condition report |
| NCV | Non-cited violation |
| NOV | Notice of Violation |
| NRC | U. S. Nuclear Regulatory Commission |
| OCA | Owner Controlled Area |