

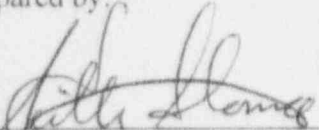
ENTERGY OPERATIONS, INC.

RIVER BEND STATION

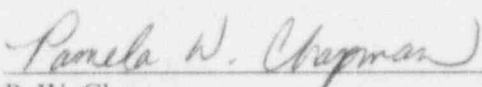
ANNUAL ENVIRONMENTAL OPERATING REPORT  
(NONRADIOLOGICAL)

August 29, 1994 - August 28, 1995

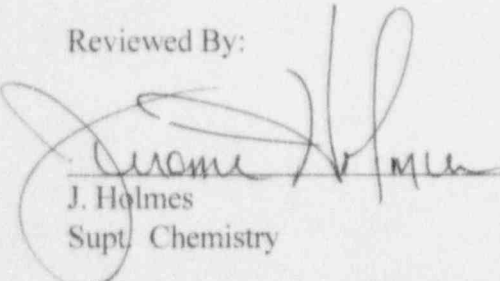
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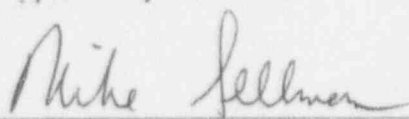
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## **RIVER BEND STATION ENVIRONMENTAL OPERATING REPORT FOR 1994/1995**

### **1.0    INTRODUCTION/OBJECTIVES**

The Annual Environmental Operating Report for the period of August 29, 1994 (anniversary of license issuance) through August 28, 1995, is submitted in accordance with Subsection 5.4.1 of Appendix B to River Bend Station Facility Operating License Number NPF-47.

River Bend Station (RBS) consists of a 936 MWE General Electric boiling water reactor located on a 3,342 acre site in West Feliciana Parish, Louisiana, 4.1 km (2.5 MI) southeast of St. Francisville. Waste heat from RBS is dissipated via systems using five mechanical draft cooling towers which draw makeup water from the Mississippi River, 3.3 (air) km (2.0 MI) to the southwest. Blowdown from the normal cooling tower system is discharged to the Mississippi River through a submerged pipe about 200 meters (660 ft) downstream from the makeup water intake.

Appendix B to the RBS operating license is the Environmental Protection Plan (Nonradiological), or EPP, which has the following principal objectives:

1.    to verify that the facility is operated in an environmentally acceptable manner, as established in the Final Environmental Statement Related to the Operation of River Bend Station (NUREG-1073, commonly referred to as the FES-OL) and other Nuclear Regulatory Commission (NRC) impact assessments
2.    to coordinate NRC requirements and maintain consistency with other Federal, State, and local requirements for environmental protection
3.    to keep the NRC informed of the environmental effects of facility construction and operation and of actions taken to control these effects.

### **2.0    ENVIRONMENTAL PROTECTION ISSUES**

In the FES-OL dated January 1985, the NRC staff considered the environmental impacts associated with the operation of River Bend Station Unit 1. Certain environmental issues were identified which required study or license conditions to resolve environmental concerns and to assure adequate protection of the environment.

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### 2.1 Aquatic Issues

No specific aquatic issues were identified by the NRC staff in the FES-OL. Environmental concerns which relate to water quality are regulated by way of the facility's National Pollutant Discharge Elimination System (NPDES) Permit and Louisiana Water Discharge Permit.

### 2.2 Terrestrial Issues

Salt drift deposition from the normal cooling towers may cause changes in, or damage to, nearby vegetation on RBS property (FES-OL Section 5.5.1). A monitoring program to identify the extent of impacts and the mitigative actions necessary, if any, is specified in EPP Section 4.2.2.

### 2.3 Noise Issues

Operation of the normal cooling towers, the service water cooling tower and main station transformers at RBS may increase noise levels at nearby residences (FES-OL Section 5.12). A monitoring program to identify the extent of impacts and the mitigative actions necessary, if any, is specified in EPP Section 4.2.3.

## 3.0 CONSISTENCY REQUIREMENTS

### 3.1 Plant Design and Operation

In accordance with the EPP, RBS personnel prepare and record an environmental evaluation of any proposed change in plant design or operation or performance of any test or experiment which may significantly affect the environment. Such evaluations are not performed on activities which do not affect the environment or are required for compliance with non-NRC environmental regulations. The environmental evaluation process is administered through programs governing design modification and the development/revision of written procedures. Before engaging in additional construction or operational activities which may significantly affect the environment, a determination is made and recorded as to whether any proposed change involves an Unreviewed Environmental Question Determination (UEQD). A proposed activity involves a UEQD if it concerns:

- a) a matter which may result in a significant increase in any adverse environmental impact previously evaluated in the FES-OL, environmental impact appraisals, or in any decisions of the Atomic Safety and Licensing Board;

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- b) a significant change in effluent or power levels; or
- c) a matter, not previously reviewed and evaluated in the documents specified in (a) above, which may have a significant adverse environmental impact.

If the activity meets any of these criteria it must either not be performed as proposed or a written evaluation must be prepared and submitted for prior NRC approval.

During this reporting period two modifications were completed which were evaluated for their environmental impact under the design modification program referred to above.

In MR 95-0007 a UEQD was made that addressed the following environmental issues surrounding this proposed modification:

1. influents and effluents associated with the new Wastewater Treatment Plant (WWTP).
2. demolition and disposal of the existing Sewage Treatment Plant (STP).
3. new utility system tie-in locations for domestic Water and Circulating Water Blowdown supply lines for the new WWTP.

Based on the results of the Safety Analysis Environmental Evaluation (SAEE), the potential indirect affects to safety related structures, Systems or Components proved, conclusively, no introduction of any Unreviewed Safety Question (USQ). The UEQD concluded that the EPP will not be affected by the changes made by MR 95-0007. Therefore, based on results of this SAEE, there is no UEQ nor any adverse degradation in the effectiveness of the Environmental Protection Plan (EPP).

In MR 93-0005 an SAEE was performed to evaluate the environmental impact of the installation of seven oil free electric air compressors as a source of station instrument air. The following environmental issues were reviewed during the evaluation:

1. the impact of condensate discharge to the station permitted storm water outfall 006.
2. the possible environmental impact associated with air emissions.



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The UEQD concluded that there was no significant impact to the environment as a result of the changes made in MR 93-0003. Therefore, based on the results of the SAEE, there is no UEQ or degradation in the effectiveness of the EPP.

The records of these environmental determinations are maintained in the Station Permanent Plant File as part of documentation associated with the modification request program and/or the procedure development system.

### **3.2    Reporting Related to NPDES Permit and State Certification**

Violations of the NPDES and Louisiana Water Discharge permits have been reported to the NRC via copies of the nonroutine reports sent to the other agencies pursuant to permit requirements (see Table 1).

On January 27, 1992 River Bend submitted to LDEQ a renewal application with modifications for Louisiana Water Discharge Permit No. WP0409. Subsequently, the station has submitted to LDEQ five letters which contain supplemental information and operational change requests. River Bend Station continues to comply with the terms and conditions of the previous permit, per LDEQ guidance, which was to expire on May 28, 1992.

### **3.3    Changes Required for Compliance with Other Environmental Regulations**

During the period covered by this report the changes in plant design or operation and performance of tests or experiments required to achieve compliance with non-NRC environmental regulations were:

1. four additional emergency diesel generators providing back-up electricity during power failure were added to the station Louisiana Air Emission Permit No. 3160-00009-01, which became effective December 16, 1994.
2. station water discharge permit letters of no objection were issued by LDEQ to allow chemical treatments using a non-oxidizing biocide to control zebra mussel infestations in the station make-up water system.

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### 4.0 ENVIRONMENTAL CONDITIONS

#### 4.1 Unusual or Important Environmental Events

During the period covered by this report there were no unusual or important events, causally related to RBS operation, which resulted in significant environmental impacts.

#### 4.2 Environmental Monitoring

4.2.1 Aquatic Monitoring. - Water quality monitoring was performed in accordance with the requirements established in the station's NPDES and Louisiana Water Discharge permits. Results were documented in monthly Discharge Monitoring Reports and nonroutine reports (Table 1), as required, submitted to the USEPA and LDEQ.

4.2.2 Terrestrial Monitoring. - Subsection 4.2.2 of the EPP requires monitoring by aerial photograph beginning two years prior to cooling tower operation and during the following first and third years of operation. This requirement was completed in 1989 when the "third year" set of stereo color infrared transparencies were monitored. During this reporting period River Bend Station performed terrestrial monitoring with aerial photography, and expanded this monitoring to address a licensing commitment to monitor for and report the existence of new oil and gas wells and pipelines within 2 miles of the plant. No changes in vegetative communities or individual trees, attributable to salt drift impacts, was indicated. The only loss of vegetative communities observed was associated with the construction of the new WWTP and the low level radwaste building constructed to the North of the substation and just south of the clarifiers. No changes in the number or size of wellheads, pipelines or transmission line right-of-ways were identified within 2 miles of RBS. The photo interpretation report is provided as Enclosure 1.

4.2.3 Noise Monitoring. - The requirement to conduct an environmental noise monitoring program (EPP Subsection 4.2.3) was completed during 1986/87 and the results were included in the second Annual Environmental Operating Report. In general, the acoustic environment in the vicinity of RBS proved to be substantially



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more complex than anticipated, but neither the magnitude of increases attributable to plant operation nor community reaction exceeded FES-OL predictions.

### 5.0 ADMINISTRATIVE PROCEDURES

#### 5.1 Review and Audit

Entergy has provided for independent review and audit of compliance with the EPP. The main group responsible for audits of EPP-related activities, the RBS Quality Assurance Department, reported directly to the Director - Nuclear Safety during the period covered in this report. All findings identified during the reporting period were satisfactorily resolved and did not indicate a significant deterioration on the activities being audited.

#### 5.2 Records Retention

Records and logs relative to environmental aspects of plant operation and audit activities are retained in the RBS Permanent Plant File. These records and logs are available to the NRC on request. Records of modifications to station structures, systems, and components determined to potentially affect the continued protection of the environment will be retained for the life of the plant. Other records, data, and logs relating to the EPP will be retained for five years or, where applicable, in accordance with the requirements of the USEPA and LDEQ.

#### 5.3 Changes in Environmental Protection Plan

There were no requests for changes to the EPP during the period covered by this report.

#### 5.4 Plant Reporting Requirements

5.4.1 Routine Reports. - This Annual Environmental Operating Report was prepared to meet the reporting requirements of EPP Subsection 5.4.1 for the period from August 29, 1994, through August 28, 1995. Summaries and analyses of the results of monitoring programs, including comparisons with related pre-operational studies, operational controls, and previous reports are presented in Section 4.2 above. During the period of this report there were no indications of significant harmful effects or evidence of trends toward irreversible damage to the environment causally related to the operation of River Bend Station.

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5.4.2 Nonroutine Reports. - All nonroutine events from August 29, 1994, through August 28, 1995, that were reportable were identified to other federal, state, or local agencies in accordance with their reporting requirements in lieu of requirements of EPP Subsection 5.4.2 (see Table 1).

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TABLE 1  
NONROUTINE REPORTS TO FEDERAL AND STATE  
ENVIRONMENTAL REGULATORY AGENCIES

<b>DATE</b>	<b>TYPE</b>	<b>RECIPIENT(S)*</b>	<b>DOCUMENT</b>
09-09-94	Letter	USCOE	RBG-40,867
10-25-94	Letter	LDHH	RBG-40,983
11-21-94	Letter	LDEQ	RBG-41,073
11-21-94	Letter	USEPA	RBG-41,074
12-06-94	Letter	USEPA	RBG-41,084
12-06-94	Letter	LDEQ	RBG-41,085
12-07-94	Letter	LDHH	RBG-41,089
12-21-94	Letter	LDEQ	RBG-41,135
02-14-95	Letter	LDHH	RBG-41,199
02-14-95	Letter	LDEQ	RBG-41,198
02-17-95	Letter	LDEQ	RBG-41,161
05-16-95	Letter	LDEQ	RBG-41,527
09-19-95	Letter	LDEQ	RBG-41,981

\* Agency abbreviations: USEPA = U. S. Environmental Protection Agency (Region VI)  
 DEQ = Louisiana Department of Environmental Quality  
 LDHH = Louisiana Department of Health and Hospitals  
 USCOE = United States Army Corps of Engineers