

## NRR-PMDAPEm Resource

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**From:** Drucker, David  
**Sent:** Tuesday, November 07, 2017 9:18 AM  
**To:** 'wmagui1@entergy.com'  
**Cc:** RidsNrrDmlr Resource; RidsNrrDmlrMrpb Resource; RidsNrrDmlrMenb Resource; RidsNrrPMRiverBend Resource; RidsOgcMailCenter Resource; Grange, Briana; Rautzen, William; Ford, William; Martinez, Nancy; Rikhoff, Jeffrey; Moser, Michelle; Folk, Kevin; Hoffman, Robert; Sayoc, Emmanuel; Beasley, Benjamin; Burton, William; Tran, Tam; Regner, Lisa; Sowa, Jeffrey; Parks, Brian; Maier, Bill; Dricks, Victor; Moreno, Angel; Burnell, Scott; Turk, Sherwin; BUCKLEY, RICKY N (RBUCKLE@entergy.com); SPELL, WILLIAM H; Wilson, George; Donoghue, Joseph  
**Subject:** SUBJECT: RIVER BEND STATION, UNIT 1 - LICENSE RENEWAL ENVIRONMENTAL REQUESTS FOR ADDITIONAL INFORMATION (EPID L-2017-LNE-0026)  
**Attachments:** E-MAIL - RBS envr - RAI email - enclosure.pdf

Dear Mr. Maguire:

The U.S. Nuclear Regulatory Commission (NRC) is reviewing the Entergy Operations, Inc. (Entergy) application for renewal of the operating license for River Bend Station, Unit 1 (RBS). As part of the environmental review, an environmental site audit was conducted at RBS, by NRC staff, during the week of October 23, 2017. As a result of the audit and the NRC staff's review of the RBS environmental report, staff has identified areas where additional information is needed to complete the review. The enclosure lists the environmental requests for information.

The NRC staff transmitted this information to Rick Buckley, Entergy, by e-mail on November 2, 2017. Please provide the responses 30 days from the date of this e-mail.

If you have any questions, please contact me by telephone at 301-415-6223 or by e-mail at [David.Drucker@nrc.gov](mailto:David.Drucker@nrc.gov).

Sincerely,

David Drucker, Sr. Project Manager  
License Renewal Projects Branch  
Division of Materials and License Renewal  
Office of Nuclear Reactor Regulation

Docket No. 50-458

Enclosure: Environmental Requests for Additional Information

cc w/encl: Distribution via Listserv

OFFICE	PM:MRPB:DMLR	BC:MRPB:DMLR (A)	BC:MENB:DMLR	PM:MRPB:DMLR
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DATE	10/30/2017	11/2/2017	11/2/2017	11/7/2017

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**Subject:** SUBJECT: RIVER BEND STATION, UNIT 1 - LICENSE RENEWAL ENVIRONMENTAL REQUESTS FOR ADDITIONAL INFORMATION (EPID L-2017-LNE-0026)  
**Sent Date:** 11/7/2017 9:18:08 AM  
**Received Date:** 11/7/2017 9:18:09 AM  
**From:** Drucker, David

**Created By:** David.Drucker@nrc.gov

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RIVER BEND STATION, UNIT 1  
LICENSE RENEWAL ENVIRONMENTAL REQUESTS FOR ADDITIONAL INFORMATION

## 1. AIR QUALITY, METEOROLOGY and NOISE

### Air Quality and Meteorology (AQ)

**RAI-AQ-1:** Section 3.2, "Meteorology and Air Quality," of Regulator Guide 4.2, Supplement 1, Rev. 1. (RG 4.3, S1, R1), states that the applicant should "provide information that includes a description of the local and regional meteorology and climatology from nearby representative sites...". Provide the following meteorological information from the data recorded at RBS's meteorological facility for the most recent 5 years:

- a.) mean monthly and annual temperatures.
- b.) monthly total precipitation and total annual precipitation.
- c.) annual prevailing wind direction and mean wind speed (include wind data from both 30-foot and 150-foot sensors).

**RAI-AQ-2:** Section 3.2, "Meteorology and Air Quality," of RG 4.2, S1, R1, states that the applicant should "describe the onsite meteorological monitoring program and meteorological data monitoring system...". During the RBS environmental audit, the NRC staff toured the RBS meteorological tower and held discussions pertaining to on-going assessment of wind direction. Summarize the discussion, including:

- a.) when (year) the trees to the east of the meteorological tower were trimmed back.
- b.) describe action(s) taken in the assessment of on-site wind direction.

**RAI-AQ-3:** Pursuant 10 CFR 51.45(d) the ER shall include a discussion status of compliance with applicable environmental quality standards and requirements. In addition to the statement provided in Section 9.3 of the ER, has RBS received any Notices of Violation (NOVs) from the Louisiana Department of Environmental Quality (LDEQ) regarding RBS's air permit since 2015?

### Noise (NOI)

**RAI-NOI-1:** Section 3.3, "Noise," of RG 4.2 S1 R1 states that the applicant "should provide information about noise complaints...". Section 3.3 of the ER identifies that Entergy received a complaint from a local resident regarding activities associated with the firing range and then conducted meetings with local law enforcement regarding this complaint. From these meetings, Entergy determined that nighttime activities at the RBS firing range were not occurring during the time period cited by the local resident. Provide:

- a.) The year Entergy received the complaint.
- b.) Additional details (e.g., discussions, reports, action items) on the meetings that were conducted by local enforcement and Entergy.
- c.) Location and distance of the resident relative to the firing range.

**RAI-NOI-2:** Section 3.3, "Noise," of RG 4.2 S1 R1 states that the applicant "should provide information about noise complaints..." The ER identifies that over a 5-year period (2011-2015), there have been no noise complaints related to actual plant operations. Has Entergy received any noise complaints since 2015 pertaining to RBS plant operations?

Provide the following ER references for docketing:

1. Entergy. 2016h. River Bend Station Air Emissions Calculations—Criteria Pollutants, Hazardous Air Pollutants, and Greenhouse Gases. May 3, 2016.
2. RBS. 2009. River Bend Station Air Permit Number 3160-00009-04. July 28, 2009.
3. Gulf States Utilities Company, "River Bend Station Environmental Report, Operating License Stage," Volumes 1-4, Supplements 1-9, November 1984 (specifically, Noise Sections 2.9, 5.8.1.2, 6.7.1 and associated figures and tables).

## **2. ALTERNATIVES (AL)**

**RAI-AL-1:** Identify the available acreage and location(s) on the Entergy Louisiana, LLC property that would be suitable for siting replacement power generation. Identify whether these areas would require excavation, backfilling, or removal of existing structures.

## **3. AQUATIC RESOURCES (AR) – None**

## **4. CUMULATIVE (CU)**

**RAI-CU-1:** Please provide name, description, location, and status of any additional past, present, or reasonably foreseeable projects or actions that have been identified since the applicants' ER was prepared.

**RAI-CU-2:** Please provide a brief description and estimated schedule for the onsite demolition projects that were discussed with Entergy personnel during the environmental site audit (e.g., Old Maintenance Shop, ANCO Building, Pipe Shop, Field Administration Building). Please clarify the revised construction start and completion dates that were discussed in regard to the proposed ISFSI expansion.

## **5. ENVIRONMENTAL JUSTICE (EJ) – None**

## **6. GEOLOGIC ENVIRONMENT (GE) – None**

## **7. GROUNDWATER (GW)**

**RAI-GW-1:** The ER (Section 3.5.4.2.1) contains a description of liquid radioactive releases from 2008 through 2016. Have any radioactive releases occurred since the ER was written?

**RAI-GW-2:** Data from the quarterly sampling of radionuclides (including tritium) in groundwater is reported annually to the NRC. Staff has access to quarterly sampling data through the end of 2016. Please provide an update of quarterly radionuclide groundwater sample data that has been collected and finalized for 2017. In addition to radionuclide concentrations, include the well sampled and the date of the samples.

**RAI-GW-3:** Provide an estimate of average groundwater flow time from the power block area to the Mississippi River (i.e. how long it takes for the groundwater to reach the river).

## **8. HISTORIC AND CULTURAL RESOURCES (HC)**

*Sensitive cultural resources information, such as archaeological site location information, should be withheld from public disclosure and guidance described in Section 304 of the National Historic Preservation Act should be followed.*

**Please submit responses to the following questions (as shown on the portal) for docketing:**

**RAI-HC-1:** Provide copies of any archaeological surveys performed on the Entergy Louisiana, LLC property and referenced in the RBS ER, including a copy of the 2015 “Phase 1A Literature Review and Archaeological Sensitivity Assessment of the River Bend Station Unit 1, West Feliciana Parish, . Louisiana,” prepared by Coastal Environments, Inc., October 16, 2015.

**RAI-HC-2:** Approximately what percentage of land within the boundaries of the Entergy Louisiana, LLC property is undisturbed? Provide a map detailing the level of previous and existing ground disturbance at the plant site, including documentation on how this level of disturbance was determined.

**RAI-HC-3:** Approximately what percentage of land within the boundaries of the Entergy Louisiana, LLC property has been formally surveyed? Provide a map of site locations and previously surveyed areas within the entire Entergy Louisiana, LLC property (plant site and plant property) and along existing transmission lines, up to the first substation.

**RAI-HC-4:** Provide a summary description of any administrative controls and environmental procedures in place for land-disturbing activities at RBS (e.g., trenching, clearing, and digging). Describe how inadvertent cultural resource discoveries are treated.

**RAI-HC-5:** Provide copies of all letters and communications to and from the Louisiana SHPO specific to determining the National Register of Historic Places eligibility of all cultural resources identified to date within the Entergy Louisiana, LLC property. Please include information related to the status of the onsite cultural resources with undetermined eligibility referenced in Section 3.7 of the ER.

**RAI-HC-6:** Provide consultation letters and other communication documents indicating correspondence to and from the Louisiana SHPO and to and from Federally recognized Indian tribes which have ancestral or historical ties to the project area and surrounding lands that you have received or sent since submittal of the ER or not included in the ER. Additionally, has any contact been made with local historical societies or other local organizations with an interest in historic preservation? If so, please describe.

**9. HUMAN HEALTH (HH) - None**

**10. LAND USE AND VISUAL RESOURCES (LU) – None**

**11. MICROBIAL HAZARDS (MH)**

**RAI-MH-1:** Provide a copy of any correspondence, such as emails or phone summaries, with State health-related agencies regarding the potential for RBS's thermal effluent to promote the growth of thermophilic microorganisms in the Mississippi River.

**12. SOCIOECONOMICS (SOC) – Please submit responses to the following questions (as shown on the portal) for docketing:**

**RAI-SOC-1:** Provide Entergy Louisiana, LLC property tax payment information for the year 2016, if available, similar to the data provided in Table 3.8-4 of the ER.

**RAI-SOC-2:** Besides West Feliciana Parish, describe any other sizeable annual support payments (e.g., emergency preparedness fees and payments or fees because of the

independent spent fuel storage installation), one-time payments, or other forms of non-tax compensation (if any) provided to local organizations, communities, and jurisdictions (e.g., State, municipalities, townships, villages, incorporated places, and school districts) on behalf of RBS.

**RAI-SOC-3:** Provide information about any anticipated changes in state and local tax laws, tax rates or tax payment adjustments that could result in notable future increases or decreases in property taxes or other tax payments on behalf of RBS.

### **13. SPECIAL STATUS SPECIES and HABITATS (SS)**

**RAI-SS-1:** At what Mississippi River Mile (RM) does effluent from Outfall 001 discharge into the Mississippi River?

**RAI-SS-2:** The ER provides an estimate of the combined thermal plume for RBS and the proposed River Bend Station, Unit 3. Has Entergy or its contractors estimated the thermal plume of RBS alone? If so, please provide a written description of the thermal plume or copies of studies or reports in which the thermal plume is characterized.

**RAI-SS-3:** Section 3.6.11.1.2 of the ER states that pallid sturgeon may occur in the action area, but the ER does not describe any occurrence records or positive identifications of pallid sturgeon in the vicinity of RBS. On what information did Entergy base its determination that pallid sturgeon may occur in the action area? Did Entergy identify any surveys, studies, or other reports that document the occurrence of pallid sturgeon in the vicinity of RBS? If so, please provide copies of such reports.

**RAI-SS-4:** Sections 3.6.11.1.2 and 4.6.3.1.3.2 of the ER state that the pallid sturgeon may occur in the RBS action area. However, the ER does not evaluate specific effects on this species. Provide a written evaluation of the effects of the following on pallid sturgeon: (1) impingement and entrainment; (2) thermal effects; (3) exposure to radionuclides and other contaminants; and (4) reduction in available prey due to impingement and entrainment or thermal impacts to prey species. Please note that although the 2013 GEIS concludes that the effects of impingement, entrainment, thermal effluent, and other effects to aquatic resources would be SMALL for plants with cooling towers, effects on federally listed threatened and endangered species must be assessed site-specifically, and therefore, a species-specific analysis of these potential effects is appropriate.

**Submit the following for docketing:** Entergy. 2016p. New and Significant Information Review—River Bend Station License Renewal Environmental Report. May 2016.

### **14. SURFACE WATER RESOURCES (SW)**

**RAI-SW-1:** Provide a summary of LPDES Discharge Monitoring Report (DMR) data (avg. max., and min. as applicable), itemizing monitored parameters for each outfall, for the last 3 years, and inclusive of 2017 year to date.

**RAI-SW-2:** Identify and describe any Notices of Violation (NOVs); nonconformance notifications; or related infractions received from regulatory agencies associated with LPDES permitted discharges, sanitary sewage systems, groundwater or soil contamination, as well as any involving spills, leaks, and other inadvertent releases (e.g., petroleum products, chemicals, or radionuclides) received since 2015 and through 2017 to date. Include self-reported violations and/or noncompliant conditions identified in Entergy's corrective action system. Provide copies of relevant correspondence to and from the responsible regulatory agencies.

**RAI-SW-3:** Provide a brief description of the purpose and project scope to permanently replace the now abandoned liquid radwaste discharge lines to Outfall 101 (as referenced in Section 3.5.4.2.1 of the ER) as well as the current temporary aboveground line. Summarize the associated construction impacts and modifications and provide project start date and estimated completion date and identify when the original below-ground discharge lines were abandoned and when the temporary above-ground pipeline was first installed.

**Submit the following for docketing:**

1. RBS. 2013a. River Bend Station LPDES Permit LA0042731, Stormwater Pollution Prevention Plan, Revision 3. July 24, 2013.
2. RBS. 2013d. River Bend Station Spill Prevention, Control and Countermeasure Plan (SPCC), Revision 15. July 24, 2013.
3. USACE NOD-23 general permit, issued August 2017, including Entergy's permit renewal application.
4. Entergy. 2017. River Bend Station Discharge Monitoring Data Summary 2014 – August 2017. (Filename "RBS DMR Summary\_2015\_Aug17" in Surface Water CERTREC subfolder)

**15. TERRESTRIAL RESOURCES (TR)**

**RAI-TR-1:** Section 1.2 of EPRI's 2002 Ecological Asset Value Development Report states that 3,000 acres of the RBS site were designated as a Natural Area in 1993. However, the ER states that 550 acres were designated as a Natural Area. Please explain this discrepancy and clarify which of the two acreages are correct and in what year the Natural Area was designated.

**16. WASTE MANAGEMENT (WM)**

**RAI-WM-1:** Since RBS is subject to the reporting provisions of 40 CFR Part 110, any discharges of oil in such quantities that may be harmful to the public health or welfare or the environment must be reported to the National Response Center. In Section 9.5.1.5 of the ER, the applicant discusses reportable spills for the 5 year period from 2011 to 2015: Have there been any reportable spills which would trigger this notification requirement since the ER was written?

**RAI-WM-2:** RBS is subject to the reporting provisions of Louisiana Environmental Regulatory Code, LAC 33.I Chapter 39, which requires that any release of oil in a quantity of 42 gallons (1 barrel) or greater to the environment be reported to the Louisiana Department of Public Safety and the LDEQ. In section 9.5.1.5 of the ER, the applicant discusses these spills for the 5 year period of 2012-2016: Have there been any reportable spills which would trigger this notification requirement since the ER was written?