

SEPTEMBER 2018

CLECO POWER LLC BRAME ENERGY CENTER



WETLANDS ASSESSMENT

BOTTOM ASH POND



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Project Number 002-213

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1.0 INTRODUCTION

Providence was contracted by Cleco Power LLC (Cleco) to conduct a wetlands assessment of the Bottom Ash Pond at Cleco's Brame Energy Center. Recent Coal Combustion Residual (CCR) regulations at 40 CFR 257.61 established requirements for owners and operators to conduct a wetlands assessment by a qualified professional engineer.

40 CFR 257.61 (a) states that *new CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in Section 232.2 of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs below:*

- *Where applicable under Section 404 of the Clean Water Act or applicable state wetlands laws, a clear and objective rebuttal of the presumption that an alternative to the CCR unit is reasonably available that does not involve wetlands.*
- *The construction and operation of the CCR unit will not cause or contribute to any of the following:*
 - *A violation of any applicable state or federal water quality standard;*
 - *A violation of any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act;*
 - *Jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and*
 - *A violation of any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of marine sanctuary.*
- *The CCR unit will not cause or contribute to significant degradation of wetlands by addressing all of the following factors:*
 - *Erosion, stability, and migration potential of native wetland soils, muds, and deposits used to support the CCR unit;*
 - *Erosion, stability, and migration potential of dredged and fill materials used to support the CCR unit;*
 - *The volume and chemical nature of the CCR;*
 - *Impacts of fish, wildlife, and other aquatic resources and their habitat from release of CCR;*
 - *The potential effects of catastrophic release of CCR to the wetland and the resulting impacts on the environment; and*
 - *Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected.*
- *To the extent required under section 404 of the Clean Water Act or applicable state wetlands laws, steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent reasonable as required by paragraphs (a)(1) through (3) of this section, then minimizing unavoidable impacts to the maximum extent reasonable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and reasonable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands); and*
- *Sufficient information is available to make a reasoned determination with respect to the demonstrations in paragraphs (a)(1) through (4) of this section.*

The Cleco Brame Energy Center is near Lena in Rapides Parish, Louisiana. A site location map showing the Brame Energy Center is included as **Figure 1**.

This wetlands and ecological assessment pertains to the Bottom Ash surface impoundment (Pond) utilized for the Unit 2 coal-fired generation unit. A site map for the Bottom Ash Pond is included as **Figure 2**. For an existing CCR surface impoundment, the wetland assessment must be completed no later than October 17, 2018.

2.0 WETLANDS AND ECOLOGICAL ASSESSMENT

Wetlands

On May 29, 1977, Cleco was issued a Section 10/404 permit (Permit Number *LMNOD-SP (Bayou Jean de Jean)*) by the New Orleans District of the United States Army Corps of Engineers (USACE) for dredge and fill activities for installation and maintenance of fill and a levee system for construction of a private ash pond off Bayou Jean de Jean at the current Brame Energy Center in Rapides Parish, Louisiana. The permit was specifically for dredge and fill associated with Bayou Jean de Jean and the areas within the constructed ash pond were not considered jurisdictional wetlands during the permit review process.

As part of the National Pollutant Discharge Elimination System (NPDES) permitting process, discharges from the Bottom Ash Pond were evaluated and assessed by the U.S. Environmental Protection Agency (EPA) prior to issuance of the facility's original NPDES permit which became effective on July 27, 1981. In this permit, EPA established limitations for discharges from the Bottom Ash Pond to ensure compliance with applicable water quality criteria. Compliance with the effluent limitations ensures that the discharges from the Bottom Ash Pond will not cause or contribute to an exceedance of a water quality criterion.

Furthermore, the effluent compliance history and supplemental application data on the quality of the effluent discharged from the Bottom Ash Pond has been evaluated during each permit renewal by the EPA and the Louisiana Department of Environmental Quality (LDEQ). Review of the data during every renewal term ensures that the continued discharge from the Bottom Ash Pond has not and will not cause or contribute to an exceedance of the applicable water quality criteria. In addition, the NPDES permit requires compliance with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants. At no time during evaluation and reissuance of each NPDES permit has LDEQ or EPA documented or demonstrated that effluent exceedances or the discharge of toxics has occurred which has resulted in the violation of any applicable water quality criteria. There has been no violation of any applicable water quality criteria associated with the Bottom Ash Pond.

Endangered Species

Federally-listed threatened and/or endangered species in Rapides Parish include:

- Northern long-eared bat (*Myotis septentrionalis*)
- Louisiana pearlshell mussel (*Margaritifera hembeli*)
- Pallid sturgeon (*Scaphirhynchus albus*)
- Interior least tern (*Sterna antillarum athalassos*)
- Red-cockaded woodpecker (*Picoides borealis*)

Habitat requirements for listed species is described in the following sections.

Northern long-eared bat. Wintering northern long-eared bats prefer caves and mines with large passages and entrances, constant temperatures, and high humidity with no air currents. During the summer months the species prefer to roost underneath bark, in cavities, or in crevices of live and dead trees. Some males and non-reproductive females can also be found in caves and mines due

to cooler temperatures. Breeding begins in late summer or early fall. The species can be found in the eastern and north central United States.

The **Louisiana pearlshell mussel** prefers small sandy streams featuring stable sand and gravel substrates in clear-flowing shallow water within mixed pine hardwood forests. The species is currently restricted to two sub-populations on opposite sides of the Red River drainage in central Louisiana.

Pallid sturgeon adults and sub-adults may be found in those rivers and streams until November, and in estuarine or marine waters during the remainder of the year. Sturgeon less than two years old appear to remain in riverine habitats and estuarine areas throughout the year, rather than migrate to marine waters. In Louisiana, pallid sturgeons are known to occur in the Mississippi and Atchafalaya Rivers. Spawning occurs in coastal rivers between late winter and early spring (i.e., March to May).

Preferred nesting habitat for the **interior least tern** includes bare or sparsely vegetated sand, shell, and gravel beaches, sandbars, islands, and salt flats. The species prefer open habitat avoiding thick vegetation and narrow beaches. They have also been observed using sand and gravel pits, ash disposal areas of power plants, reservoir shorelines, and other manmade sites due to the scarceness of preferred nesting habitat. The species can be found along the shorelines of the Mississippi, Missouri, Arkansas, Ohio, Red, and Rio Grande river systems and along the rivers of Texas. Interior least tern colonies are known to occur along the Red River in northwestern and central Louisiana.

Suitable **red-cockaded woodpecker** (RCW) foraging habitat is defined as a contiguous 10-acre stand of pine or pine-hardwood forest in which 50% or more of the dominant trees are pines with a minimum age of 30 years. Suitable RCW nesting habitat was defined as foraging habitat containing any pines 60 years of age or older. The pines could be scattered or clumped within younger stands. Old age pines have thinner sapwood and a larger heartwood diameter and have a greater chance of being affected by a fungus which results in the heartwood decaying and makes excavation easier for drilling nesting and roosting cavities.

Based on habitat requirements of the listed species, adverse impacts to those species as well as impacts to critical habitats are not likely to occur.

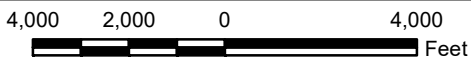
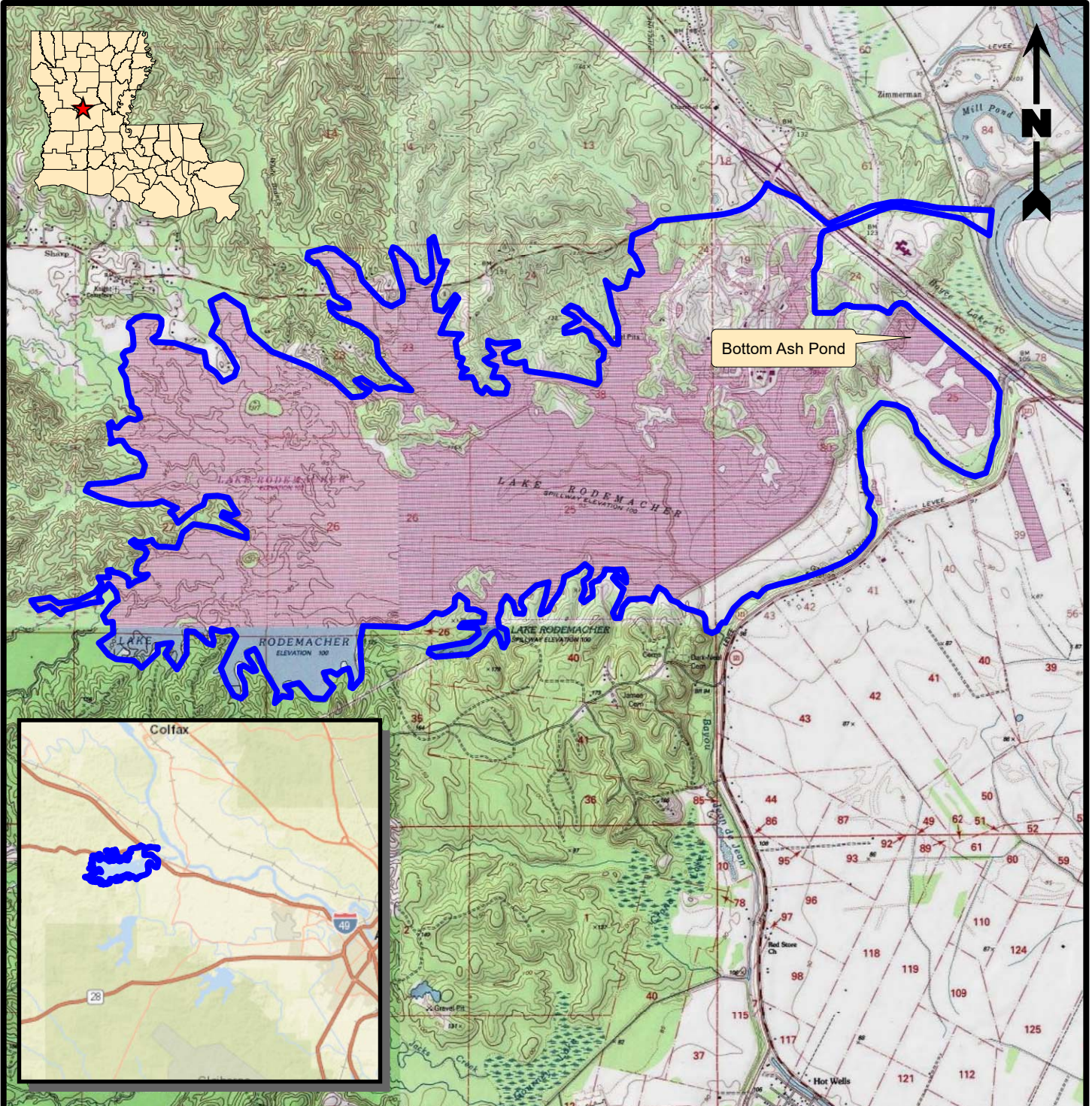
Marine Protection, Research, and Sanctuaries Act

The Marine Protection, Research, and Sanctuaries Act is not applicable at this site.

3.0 CONCLUSIONS

Based on the results of the wetlands assessment, the Bottom Ash Pond was not constructed in wetlands under the jurisdiction of the USACE and that significant degradation of wetlands is not occurring. The NPDES permit requires compliance with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants. At no time during evaluation and reissuance of each NPDES permit has LDEQ or EPA documented or demonstrated that effluent exceedances or the discharge of toxics has occurred which has resulted in the violation of any applicable water quality criteria. Based on the habitat requirements for the species listed as threatened and/or endangered under the Endangered Species Act of 1973, the continued existence of listed species and/or their critical habitat is not jeopardized. **Appendix A** contains a P.E. Certification that attests to this assessment.

FIGURE 1
SITE LOCATION MAP



Legend

 Property Boundary

Reference

Base map comprised of U.S.G.S. 7.5 minute topographic maps, "Lena, LA", "Boyce, LA", "Jericho, LA", and "Gardner, LA".

Site Location Map

Wetlands Assessment - Bottom Ash Pond
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center



PROVIDENCE

Drawn By	LMM	07/03/17
Checked By	LMH	07/03/17
Approved By	CVH	07/03/17

Project Number	002-213	1 Figure
Drawing Number	002-213-A015	

FIGURE 2
SITE MAP

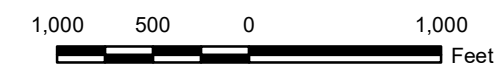


Legend

- Property Boundary
- Bottom Ash Pond

Reference

Base map comprised of Google Earth aerial imagery from 10/03/14.



Site Map

Wetlands Assessment - Bottom Ash Pond
Boyce, Rapides Parish, Louisiana

Cleco Power LLC
Brame Energy Center



Drawn By	LMM	07/03/17
Checked By	LMH	07/03/17
Approved By	CVH	07/03/17
Project Number	002-213	
Drawing Number	002-213-B016	
	2	Figure

APPENDIX A
P.E. CERTIFICATION

**CLECO BRAME ENERGY CENTER
BOTTOM ASH POND
CCR WETLANDS ASSESSMENT**

PROFESSIONAL ENGINEER CERTIFICATION

I hereby certify that I have performed a wetlands assessment for Cleco's Brame Energy Center Bottom Ash Pond in accordance with the 40 CFR 257.61 CCR requirements. Based on the results from the wetlands assessment it appears that the Bottom Ash Pond was not constructed in wetlands under the jurisdiction of the USACE and that significant degradation of wetlands is not occurring. The NPDES permit requires compliance with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants. At no time during evaluation and reissuance of each NPDES permit has LDEQ or EPA documented or demonstrated that effluent exceedances or the discharge of toxics has occurred which has resulted in the violation of any applicable water quality criteria. Based on the habitat requirements for the species listed as threatened and/or endangered under the Endangered Species Act of 1973, the continued existence of listed species and/or their critical habitat is not jeopardized.

James C. Van Hoof

Name

24630

Registration No.

LA

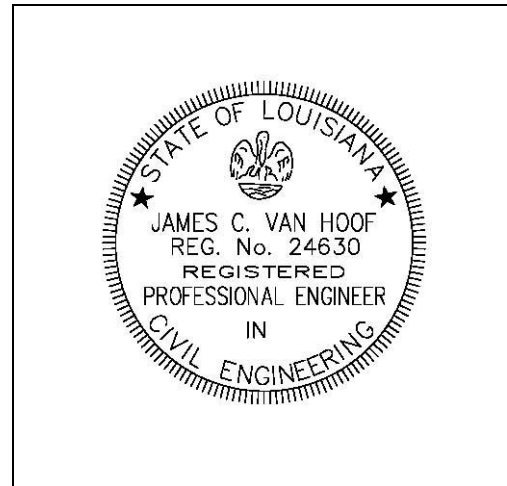
State

James C. Van Hoof, P.E.

Signature

9/20/18

Date



(Seal)