

# Post-Closure Plan Brame Bottom Ash Pond



**CLECO Corporation**

Rodemacher Unit 2  
Project No. 90965

Revision 0  
10/13/2016

# **Post-Closure Plan Brame Bottom Ash Pond**

prepared for

**CLECO Corporation  
Rodemacher Unit 2  
Rapides Parish, Louisiana**

**Project No. 90965**

**Revision 0  
10/13/2016**

prepared by

**Burns & McDonnell Engineering Company, Inc.  
Kansas City, Missouri**

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CLECO Corporation  
Post-Closure Plan  
Brame Bottom Ash Pond  
Project No. 90965

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### Certification

I hereby certify, as a Professional Engineer in the state of Louisiana, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the CLECO Corporation or others without specific verification or adaptation by the Engineer.

  
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Randell L Sedlacek, P.E.  
Louisiana License #38408

Date: 10/13/16

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**LIST OF ABBREVIATIONS**

<b><u>Abbreviation</u></b>	<b><u>Term/Phrase/Name</u></b>
BMcD	Burns & McDonnell
Brame	Brame Energy Center
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
CLECO	CLECO Corporation
EPA	Environmental Protection Agency
GMP	Groundwater Monitoring Plan
LDEQ	Louisiana Department of Environmental Quality
RCRA	Resource Conservation and Recovery Act
SAP	Sampling and Analysis Plan
U.S.C	United States Code

## 1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal Coal Combustion Residual Rule (CCR Rule) to regulate the disposal of coal combustion residual materials generated at coal-fired units. The rule will be administered as part of the Resource Conservation and Recovery Act ([RCRA, 42 United States Code [(U.S.C.) §6901 et seq.]), using the Subtitle D approach.

The existing CCR impoundments at CLECO Corporation's (CLECO's) Brame Energy Center (Brame) are subject to the CCR Rule and as such CLECO is required to develop Post-Closure Plans per 40 Code of Federal Regulations (CFR) §257.104. This report serves as the Post-Closure Plan for the Bottom Ash Pond at Brame.

This closure plan is in addition to, not in place of, any other applicable site permits, environmental standards, or work safety practices.

## 2.0 PLAN OBJECTIVES

Per 40 CFR §257.104(d)(1), the Post-Closure Plan must contain the following:

- A description of post-closure care maintenance activities (and frequency of these activities) including the following:
  - Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover
  - Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of 40 CFR §257.90 through 40 CFR §257.98
- The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period
- A description of the planned uses of the property during the post-closure period.
  - Post-closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring system unless necessary to comply with 40 CFR §257.104 or if the owner or operator of the CCR unit demonstrates that the disturbance (including any removal of CCR) will not increase the potential threat to human health or the environment

Per 40 CFR §257.104(d)(4), CLECO must obtain certification from a qualified professional engineer that the post-closure plan, and subsequent updates to the plan, meet the requirements of 40 CFR §257.104. This sealed document serves as that certification.

### 3.0 EXISTING CONDITIONS

Brame is located northwest of Alexandria in Rapides Parish, Louisiana. Brame contains two CCR impoundments: the Bottom Ash Pond and the Fly Ash Pond (see site layout included in Appendix A). The Bottom Ash Pond receives bottom ash, economizer ash, sluice water, and other process flows from Rodemacher Unit 2.

As noted in the current Permit and in the current Closure Plan prepared by Burns & McDonnell, the impoundment will be closed by leaving CCR material in place.



## 4.0 POST-CLOSURE PLAN

Post-closure monitoring and maintenance will be as described in 40 CFR §257.104(b) of the CCR Rule. The Brame Bottom Ash Pond is an existing CCR surface impoundment not subject to the design criteria under 40 CFR §257.70 and is therefore exempt from the leachate collection and removal system criteria under 40 CFR §257.104(b)(2).

### 4.1 Groundwater Monitoring

CLECO will conduct sampling of the CCR impoundment monitoring network per 40 CFR §257.90 through 40 CFR §257.98 of the CCR Rule throughout the 30-year post-closure care period. If at the end of the 30-year post-closure care period CLECO is operating under assessment monitoring in accordance with 40 CFR §257.95, CLECO will continue to conduct post-closure care until the facility returns to detection monitoring in accordance with 40 CFR §257.95. Sampling for compliance with the CCR Rule will be performed semi-annually according to the Sampling and Analysis Plan (SAP) for groundwater monitoring at the CCR surface impoundment.

### 4.2 Site Inspections

Site inspections will be performed annually during the post-closure care period to confirm that the integrity and effectiveness of the final cover system is maintained per 40 CFR §257.104(b)(1).

Maintenance of the final cover will include making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover. According to the Permit, the area will be mowed every two months during the growing season to control vegetative growth. During the site inspections, CLECO will also inspect groundwater monitoring wells to confirm that they are in accordance with the Groundwater Monitoring Plan (GMP).

### 4.3 Post-Closure Contact

Per 40 CFR §257.104 (d)(ii), CLECO has designated a contact for the Brame Ash Pond post-closure care period. The contact information is as noted below.

<b>Name</b>	Environmental Specialist
<b>Affiliation</b>	CLECO Corporation
<b>Address</b>	275 Rodemacher Rd
<b>Phone No.</b>	318-793-1194
<b>Email</b>	environmentaldepartment@cleco.com

#### **4.4 Property Use**

The Bottom Ash Pond will be utilized as a grassland and wildlife area during the post-closure care period. The property is located within a secured power plant facility, and will only be accessed during inspection and groundwater monitoring activities.

#### **4.5 Completion of Post-Closure Care**

No later than 60 days following the completion of the post-closure care period, a notification verifying that post-closure care has been completed will be prepared and placed in the facility's CCR Operating Record. The notification will include certification by a qualified professional engineer in the State of Louisiana that post-closure care has been completed in accordance with the written Post-Closure Plan in effect and the requirements of 40 CFR §257.104.

## 5.0 REVISIONS AND AMENDMENTS


The initial Post-Closure Plan will be placed in the CCR Operating Record by October 17, 2016. The plan will be amended whenever there is a change in operation of the CCR unit that would substantially affect the current or planned closure operations. The Post-Closure Plan will be amended 60 days prior to a planned change in operation, or within 60 days following an unplanned change in operation. If a written Post-Closure Plan is revised after post-closure activities have commenced, the written Post-Closure Plan will be amended no later than 30 days following the triggering event. The initial Post-Closure Plan and any amendment will be certified by a qualified professional engineer in the State of Louisiana for meeting the requirements of 40 CFR §257.104 of the CCR Rule. All amendments and revisions will be placed on the CCR public website within 30 days following placement in the facility's CCR Operating Record. A record of revisions made to this document is included in Section 6.0.

### 6.0 RECORD OF AMENDMENTS

<b>Revision Number</b>	<b>Date</b>	<b>Revisions Made</b>	<b>By Whom</b>
0	10/13/2016	Initial Post-Closure Plan	Burns & McDonnell

**APPENDIX A - SITE LAYOUT**



  
date 8/10/2016  
designed A. MYERS

**CLECO CORPORATION**  
CCR COMPLIANCE DOCUMENTATION  
SITE LAYOUT

project	90965
contract	-
drawing no.	SK - CIVIL - 001
rev.	0



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Burns & McDonnell World Headquarters  
9400 Ward Parkway  
Kansas City, MO 64114  
O 816-333-9400  
F 816-333-3690  
[www.burnsmcd.com](http://www.burnsmcd.com)