

SEPTEMBER 2018

# CLECO POWER LLC DOLET HILLS POWER STATION



## FAULT AREAS ASSESSMENT

## ASH BASIN No. 2

**Prepared By:**

**Providence Engineering and  
Environmental Group LLC**

1201 Main Street  
Baton Rouge, Louisiana 70802

(225) 766-7400

[www.providenceeng.com](http://www.providenceeng.com)

Project Number 002-212



**TABLE OF CONTENTS**

<b><u>Section</u></b>	<b><u>Page</u></b>
1.0 INTRODUCTION .....	1
2.0 FAULT AREAS ASSESSMENT.....	1
3.0 CONCLUSION .....	2

**LIST OF FIGURES**

**Figure**

- 1 Site Location Map
- 2 Site Map
- 3 Fault Location Map

**LIST OF APPENDICES**

**Appendix**

- A P.E. Certification

## 1.0 INTRODUCTION

Providence was contracted by Cleco Power LLC (Cleco) to conduct a fault areas assessment of Ash Basin No. 2 at Cleco's Dolet Hills Power Station. Recent Coal Combustion Residual (CCR) regulations at 40 CFR 257.62 established requirements for owners and operators to conduct a fault areas assessment by a qualified professional engineer.

40 CFR 257.62 (a) states:

*New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that an alternative setback distance of less than 60 meters (200 feet) will prevent damage to the structural integrity of the CCR unit.*

The Cleco Dolet Hills Power Station is located approximately 8 miles southeast of Mansfield, DeSoto Parish, LA. A site location map showing the Dolet Hills Power Station is included as **Figure 1**.

This fault areas assessment pertains to Ash Basin No. 2 surface impoundment utilized for the Unit 1 coal-fired generation unit. A site map for Ash Basin No. 2 is included as **Figure 2**. For an existing CCR surface impoundment, the fault areas assessment must be completed no later than October 17, 2018.

## 2.0 FAULT AREAS ASSESSMENT

40 CFR 257.53 states that a fault is a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side. It also states that Holocene means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch, at 11,700 years before present, to present.

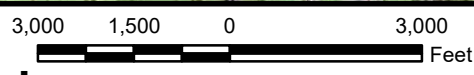
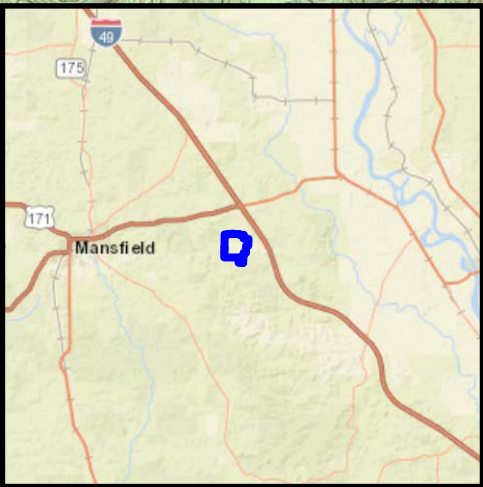
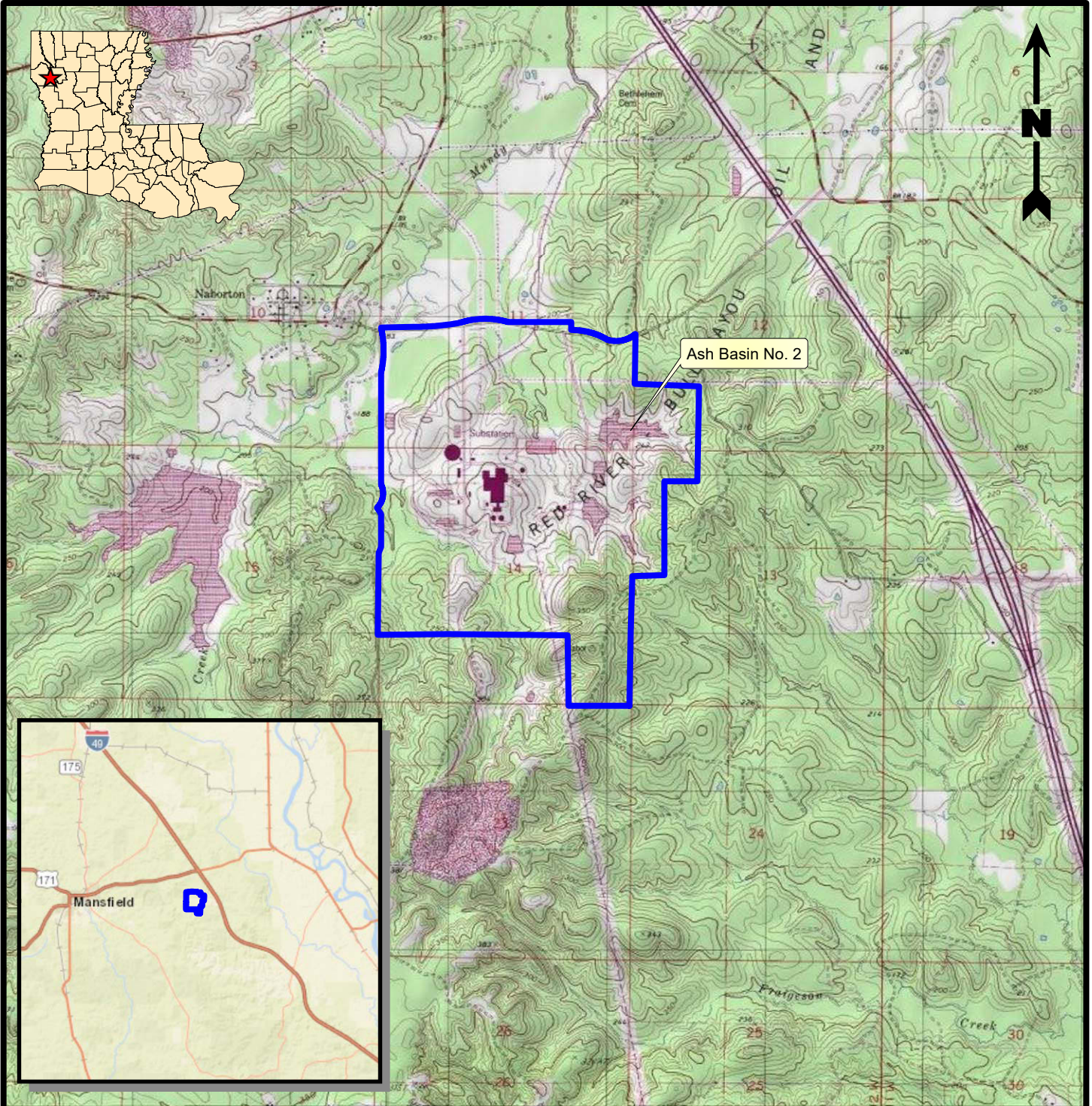
The fault locator map created on the USGS website, Mineral Resources, Online Spatial Data, By State (<https://mrddata.usgs.gov/geology/state/state.php?state=LA>) indicates no faults located within 60 meters (200 feet) of Ash Basin No. 2. This 200-foot buffer zone is shown in **Figure 3**.

Prior geological characterization determined that a minor fault was located at the facility. The minor fault has been mapped and is based on stratigraphic correlation of geophysical logs and soil boring logs. The fault displacement indicates that the fault plane is upthrown to the west and downthrown to the east. The Dolet Hills and Naborton formations are of Paleocene age deposited approximately 55 to 63 million years ago (Snider, 1982). This fault is not located within 60 meters (200 feet) of Ash Basin No. 2.


### **3.0 CONCLUSION**

Based on the results from the fault areas assessment for Ash Basin No. 2, Providence concludes that the surface impoundment is not located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time. Ash Basin No. 2 meets the requirements at 257.62 of the CCR regulations. **Appendix A** contains a P.E. Certification that attests to this assessment.

**FIGURE 1**  
**SITE LOCATION MAP**



**Legend**

 Facility Boundary

**Reference**

Base map comprised of United States Geological Survey (USGS) 7.5-minute topographic maps, "Lena, LA", "Boyce, LA", "Jericho, LA", and "Gardner, LA".

**Site Location Map**

Fault Areas Assessment - Ash Basin No. 2  
Mansfield, DeSoto Parish, Louisiana

**Cleco Power LLC**  
Dolet Hills Power Station



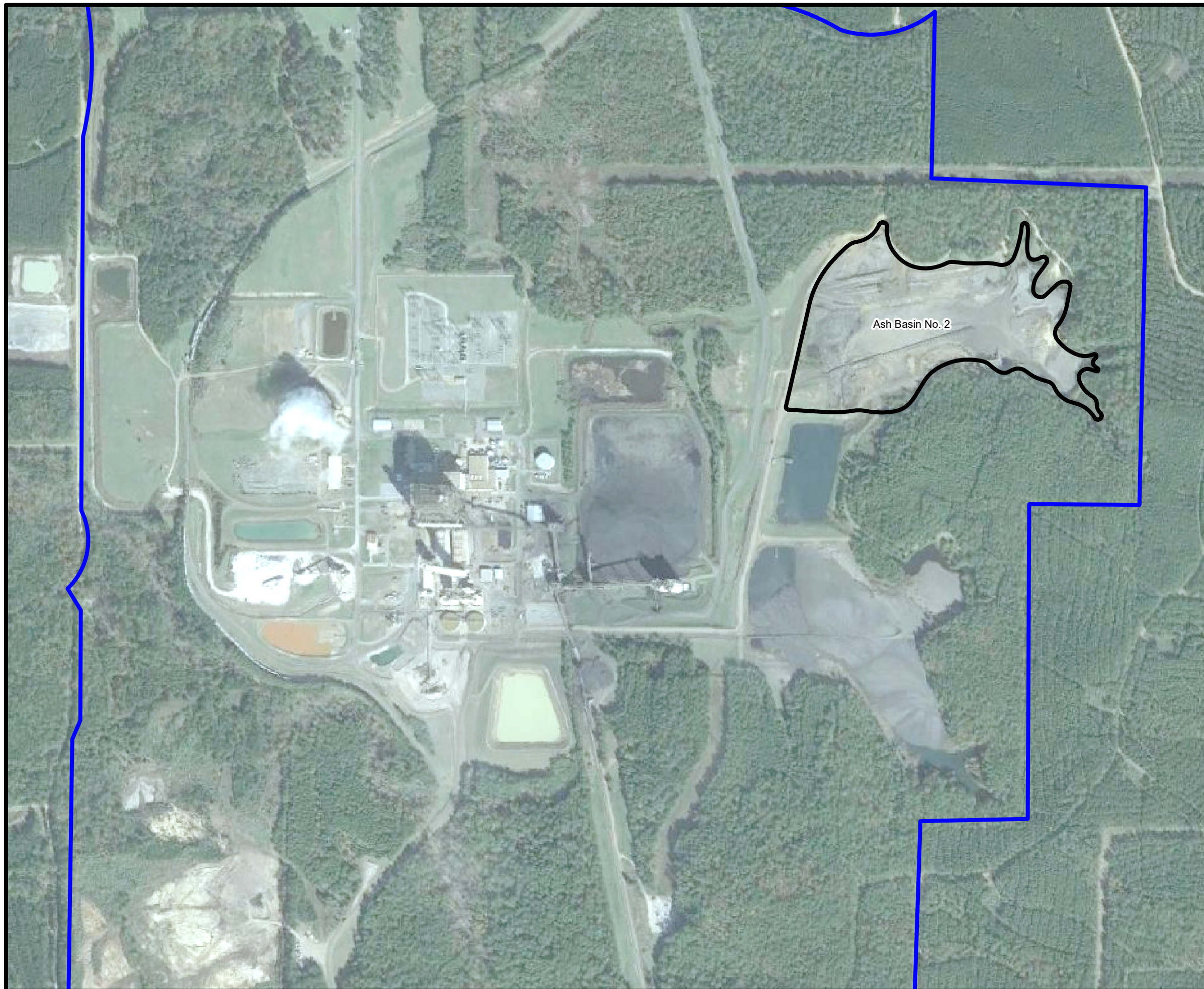
**PROVIDENCE**

Drawn By	LMM	06/21/17
Checked By	LMH	06/21/17
Approved By	CVH	06/21/17

Project Number	002-212
Drawing Number	002-212-A003

**1**  
Figure

**FIGURE 2**  
**SITE MAP**

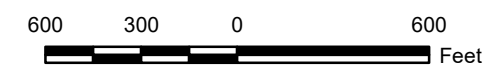


**Legend**

- Facility Boundary
- Ash Basin No 2

**Reference**

Base map comprised of Google Earth aerial imagery from 11/06/12.



**Site Map**

Fault Areas Assessment - Ash Basin No. 2  
Mansfield, DeSoto Parish, Louisiana

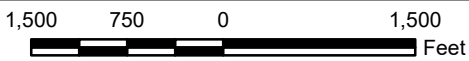
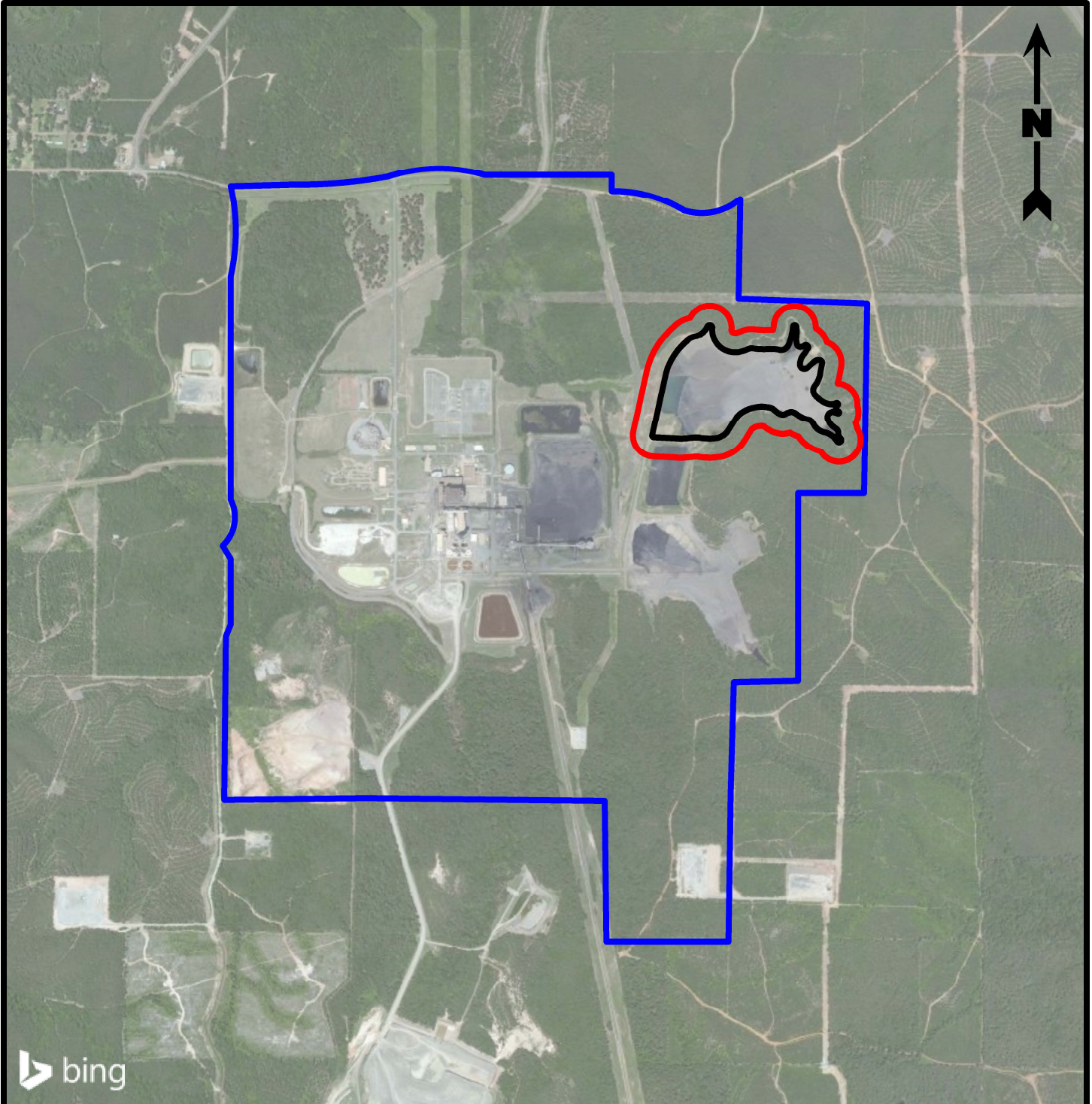
**Cleco Power LLC**  
Dolet Hills Power Station



Drawn By	LMM	06/21/17
Checked By	LMH	06/21/17
Approved By	CVH	06/21/17
Project Number		<b>2</b> Figure
002-212		
Drawing Number		
002-212-B004		



**FIGURE 3**  
**FAULT LOCATION MAP**



**Legend**

- Facility Boundary
- 200' Buffer
- Ash Basin No 2

**Note**

There are no faults located within a 200' buffer of Ash Basin No. 2.

**Reference**

Base map comprised of Bing Maps aerial imagery from (c) 2017 Microsoft Corporation and its data suppliers. Fault data obtained from the United States Geological Survey (USGS) database.

**Fault Location Map**

Fault Areas Assessment - Ash Basin No. 2  
Mansfield, DeSoto Parish, Louisiana

**Cleco Power LLC**

Dolet Hills Power Station



Drawn By	LMM	06/23/17
Checked By	LMH	06/23/17
Approved By	CVH	06/23/17

Project Number 002-212	<b>3</b> Figure
Drawing Number 002-212-A016	

**APPENDIX A**  
**P.E. CERTIFICATION**

**CLECO DOLET HILLS POWER STATION  
ASH BASIN NO. 2  
CCR FAULT AREAS ASSESSMENT**

**PROFESSIONAL ENGINEER CERTIFICATION**

I hereby certify that I have performed a fault areas assessment for Cleco's Dolet Hills Power Station Ash Basin No. 2 in accordance with the 40 CFR 257.62 CCR requirements. Based on the results from the fault areas assessment, Ash Basin No. 2 is not located within 60 meters (200 feet) of the outermost damage zone of a fault that has had displacement in Holocene time.

**James C. Van Hoof**

Name

**24630**

Registration No.

**LA**

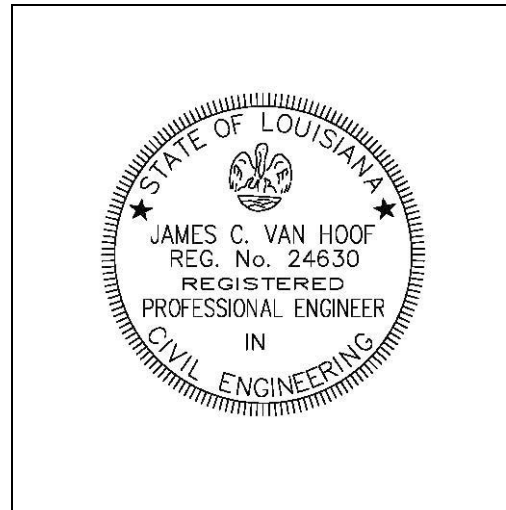
State

*James C. Van Hoof, P.E.*

Signature

9/24/2018

Date



(Seal)