

SEPTEMBER 2018

CLECO POWER LLC DOLET HILLS POWER STATION



FAULT AREAS ASSESSMENT

ASH BASIN No. 1

Prepared By:

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Project Number 002-212



TABLE OF CONTENTS

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

LIST OF FIGURES

<u>Figure</u>	
1	Site Location Map
2	Site Map
3	Fault Location Map

LIST OF APPENDICES

<u>Appendix</u>	
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. 1 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. 1 surface impoundment utilized for the Unit 1 coal-fired generation unit. A site map for Ash Basin No. 1 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.

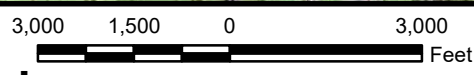
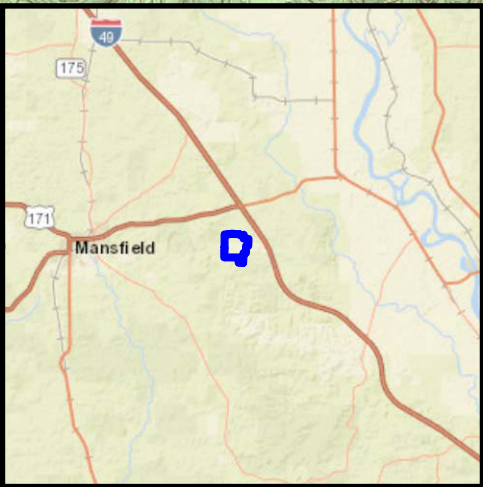
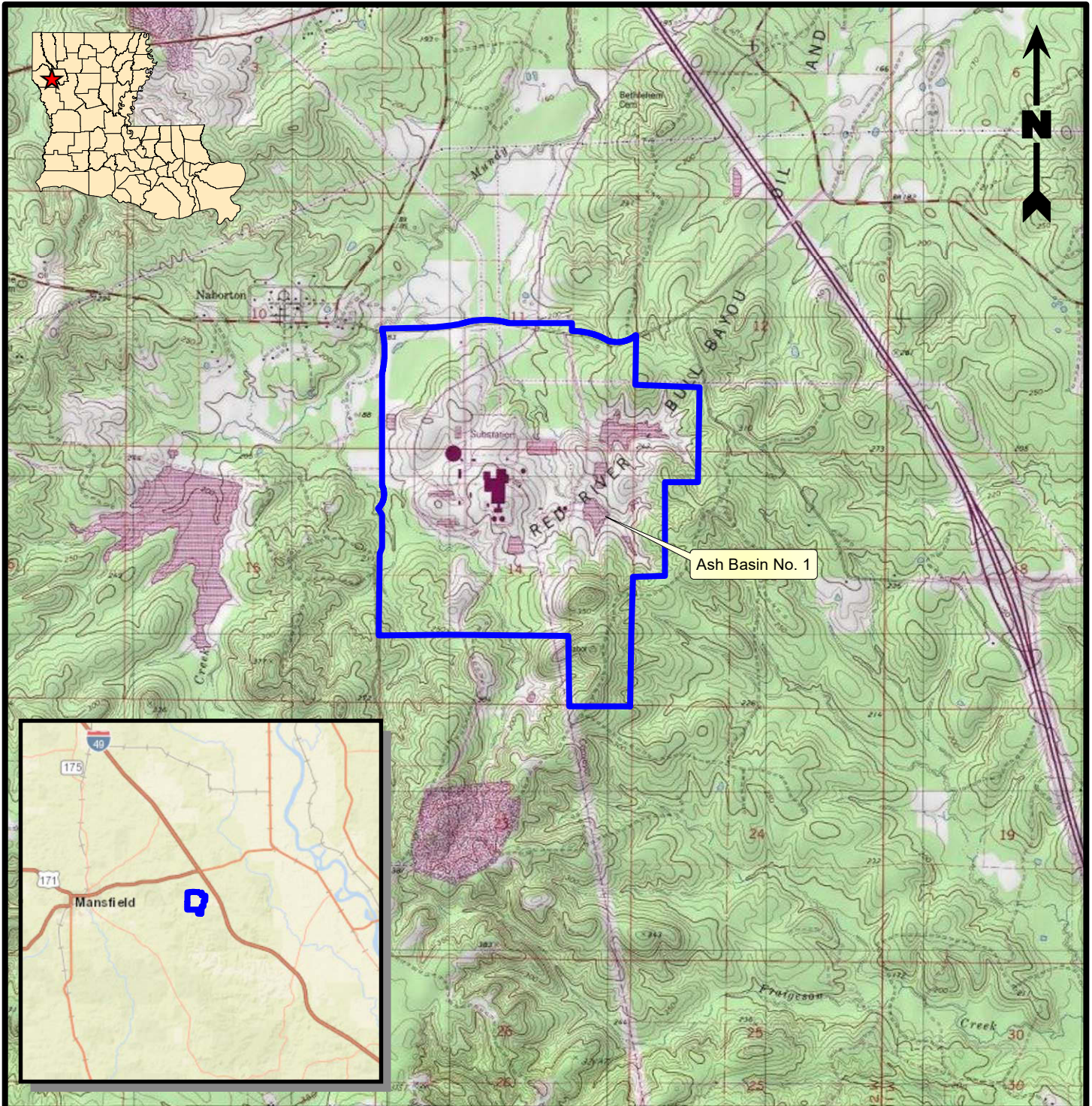
The fault locator map created on the USGS website, Mineral Resources, Online Spatial Data, By State (<https://mrddata.usgs.gov/geology/state/state.php?state=LA>) indicates no faults located within 60 meters (200 feet). This 200-foot buffer is shown in **Figure 3**.

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. 1.


3.0 CONCLUSION

Based on the results from the fault areas assessment for Ash Basin No. 1, 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. 1 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. 1
Mansfield, DeSoto Parish, Louisiana

Cleco Power LLC
Dolet Hills Power Station



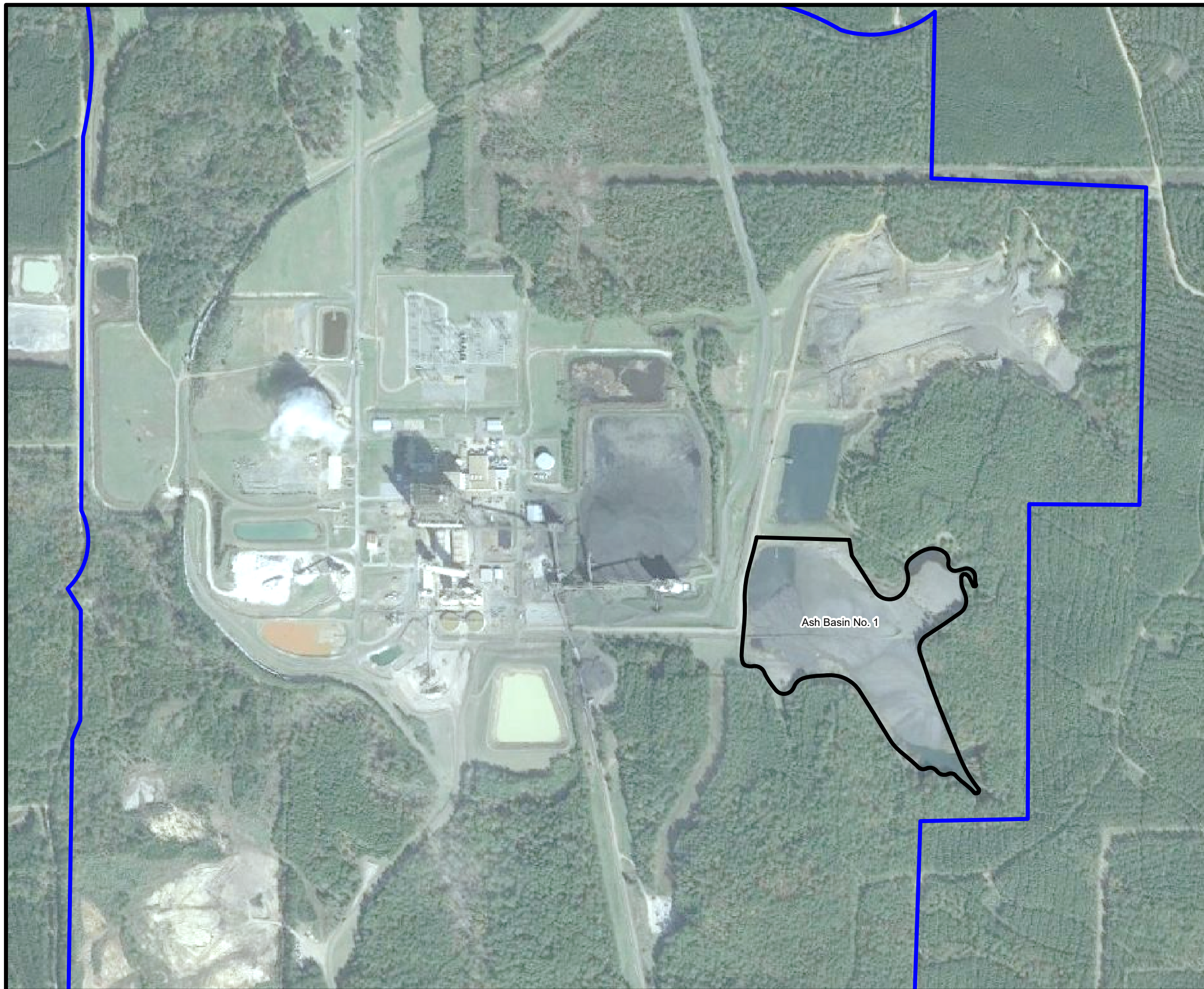
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Figure

FIGURE 2
SITE MAP

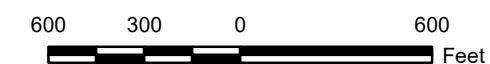


Legend

-  Facility Boundary
-  Ash Basin No. 1

Reference

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



Site Map

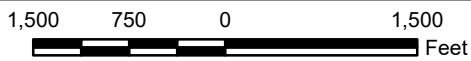
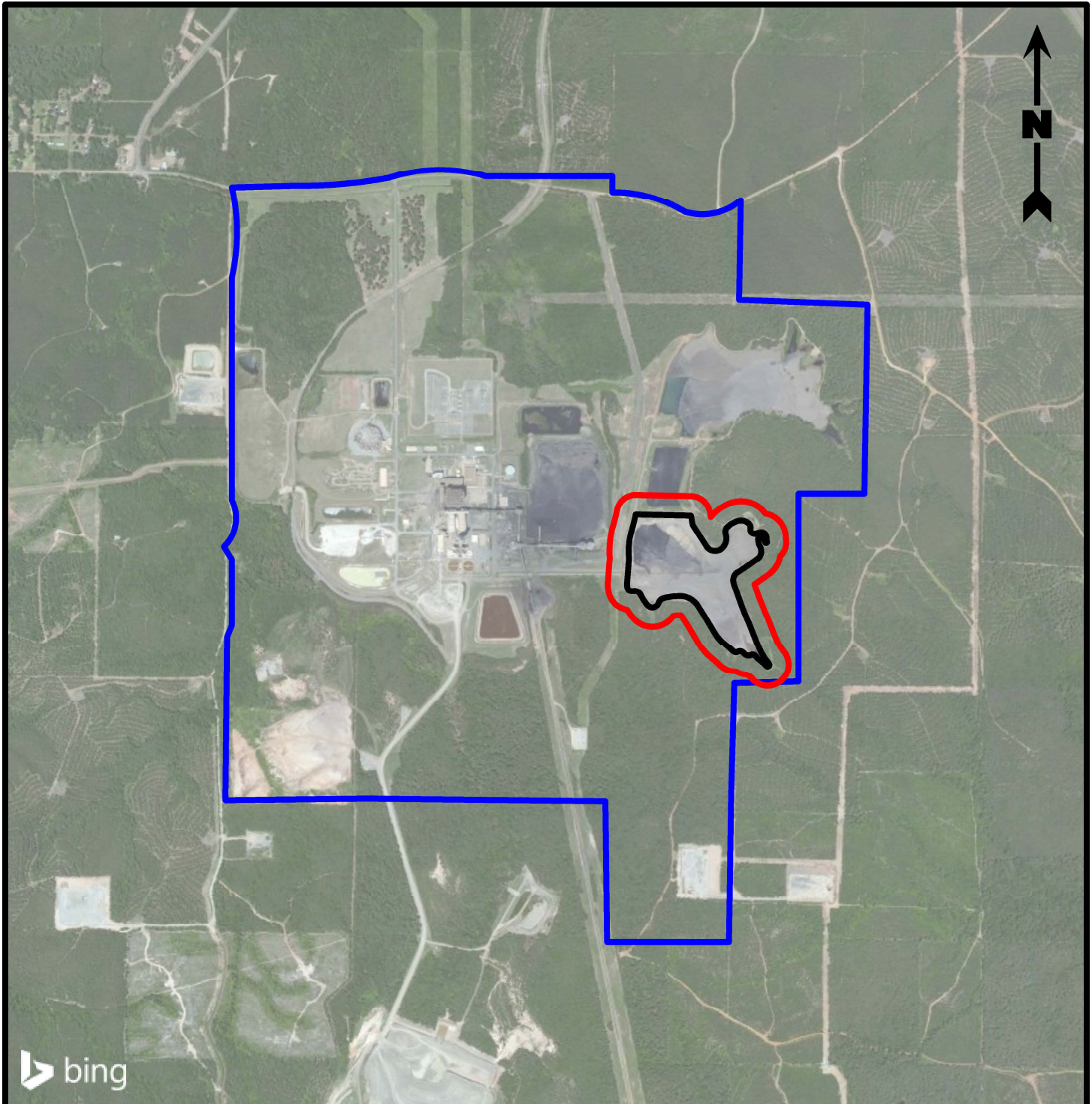
Fault Areas Assessment - Ash Basin No. 1
Mansfield, DeSoto Parish, Louisiana

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Project Number		2 Figure
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Drawing Number		
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FIGURE 3
FAULT LOCATION MAP



Legend

- Facility Boundary
- 200' Buffer
- Ash Basin No. 1

Note

There are no faults located within a 200' buffer of Ash Basin No. 1.

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. 1
Mansfield, DeSoto Parish, Louisiana

Cleco Power LLC

Dolet Hills Power Station



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APPENDIX A
P.E. CERTIFICATION

**CLECO DOLET HILLS POWER STATION
ASH BASIN NO. 1
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. 1 in accordance with the 40 CFR 257.62 CCR requirements. Based on the results from the fault areas assessment, Ash Basin No. 1 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

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LA

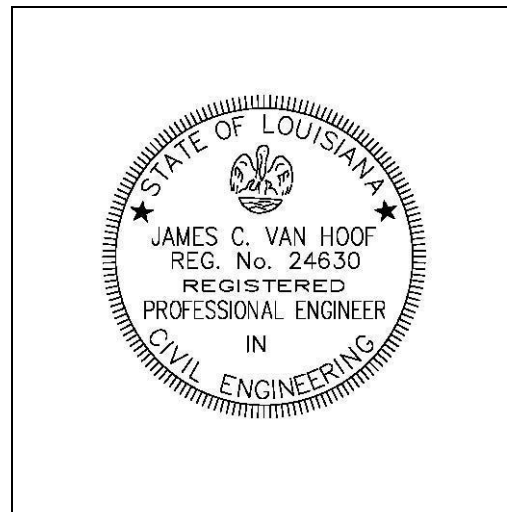
State

James C. Van Hoof, P.E.

Signature

9/24/2018

Date



(Seal)