

SEPTEMBER 2018

# CLECO POWER LLC DOLET HILLS POWER STATION



## SEISMIC IMPACT ZONES ASSESSMENT

### ASH BASIN No. 2

**Prepared By:**

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Project Number 002-212



**TABLE OF CONTENTS**

<b><u>Section</u></b>	<b><u>Page</u></b>
1.0 INTRODUCTION .....	1
2.0 SEISMIC IMPACT ZONES ASSESSMENT .....	1
3.0 CONCLUSION .....	1

**LIST OF FIGURES**

<b><u>Figure</u></b>	
1	Site Location Map
2	Site Map

**LIST OF APPENDICES**

<b><u>Appendix</u></b>	
A	P.E. Certification

## 1.0 INTRODUCTION

Providence was contracted by Cleco Power LLC (Cleco) to conduct a seismic impact zones assessment of Ash Basin No. 2 at Cleco's Dolet Hills Power Station. Recent Coal Combustion Residual (CCR) regulations at 40 CFR 257.63 established requirements for owners and operators to conduct a seismic impact zones assessment by a qualified professional engineer.

40 CFR 257.63 (a) states:

*New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in seismic impact zones unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that all structural components including liners, leachate collection and removal systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site."*

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 seismic impact zones 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 seismic impact zones assessment must be completed no later than October 17, 2018.

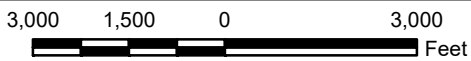
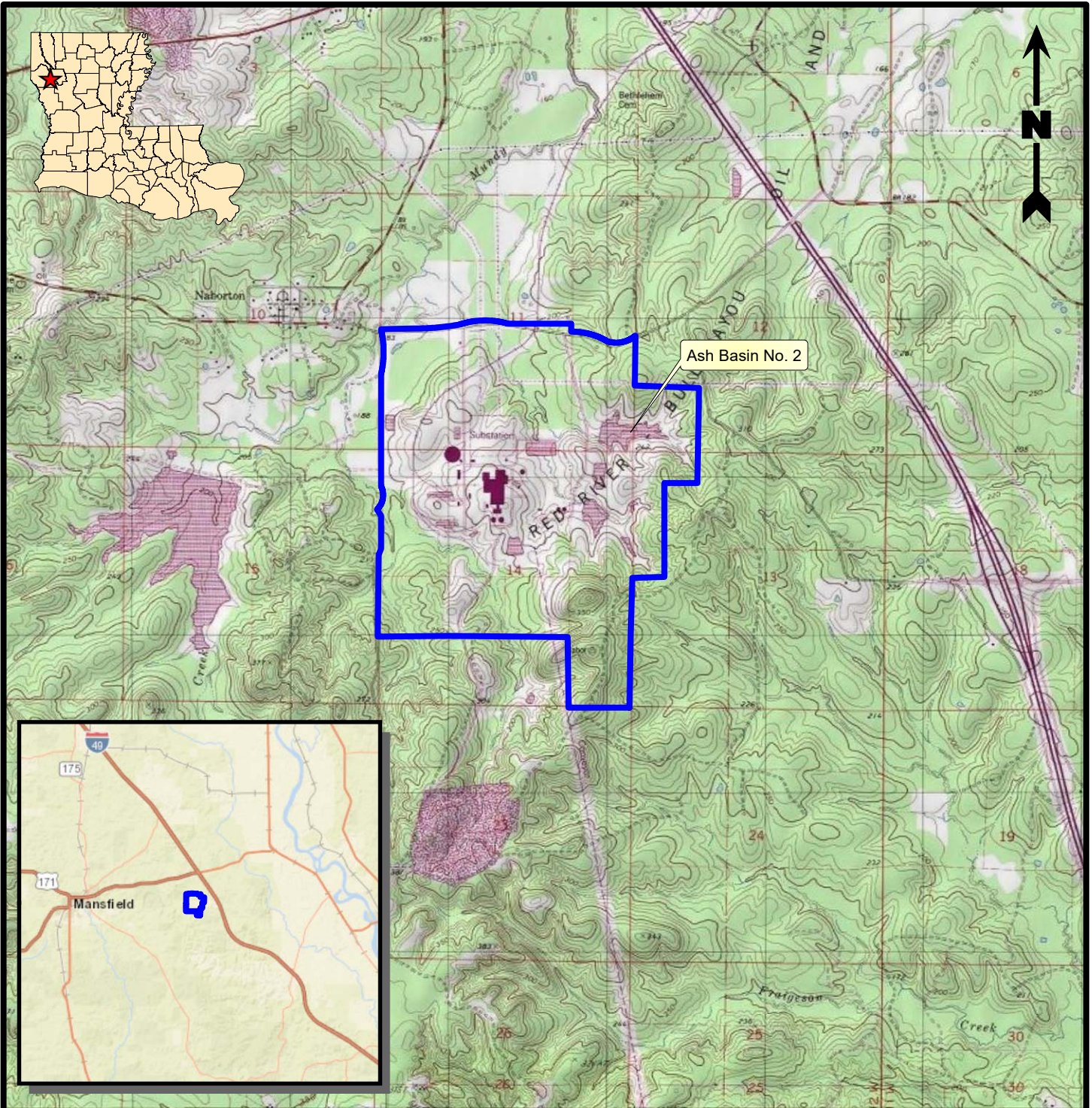
## 2.0 SEISMIC IMPACT ZONES ASSESSMENT

40 CFR 257.53 states that a seismic impact zone is defined as an area having 2% or greater probability that the maximum expected horizontal acceleration, expressed as a percentage of the earth's gravitational pull (g), will exceed 0.10 g in 50 years. The 2% probability seismic map created on the USGS website, Earthquake Hazards Program, Information By Region - Louisiana, (<https://earthquake.usgs.gov/earthquakes/byregion/louisiana-haz.php>) indicates between 4% g (0.04 g) and 8% g (0.08 g) for the facility, which is below the specified 0.10 g noted in the regulation.


## 3.0 CONCLUSION

Based on the results from the seismic impact zones assessment for Ash Basin No. 2, Providence concludes that the surface impoundment is not located in a seismic impact zone that will exceed 0.10 g in 50 years. Ash Basin No. 2 meets the requirements at 257.63 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**

**Seismic Impact Zones Assessment - Ash Basin No. 2**  
Mansfield, DeSoto Parish, Louisiana

**Cleco Power LLC**

Dolet Hills Power Station

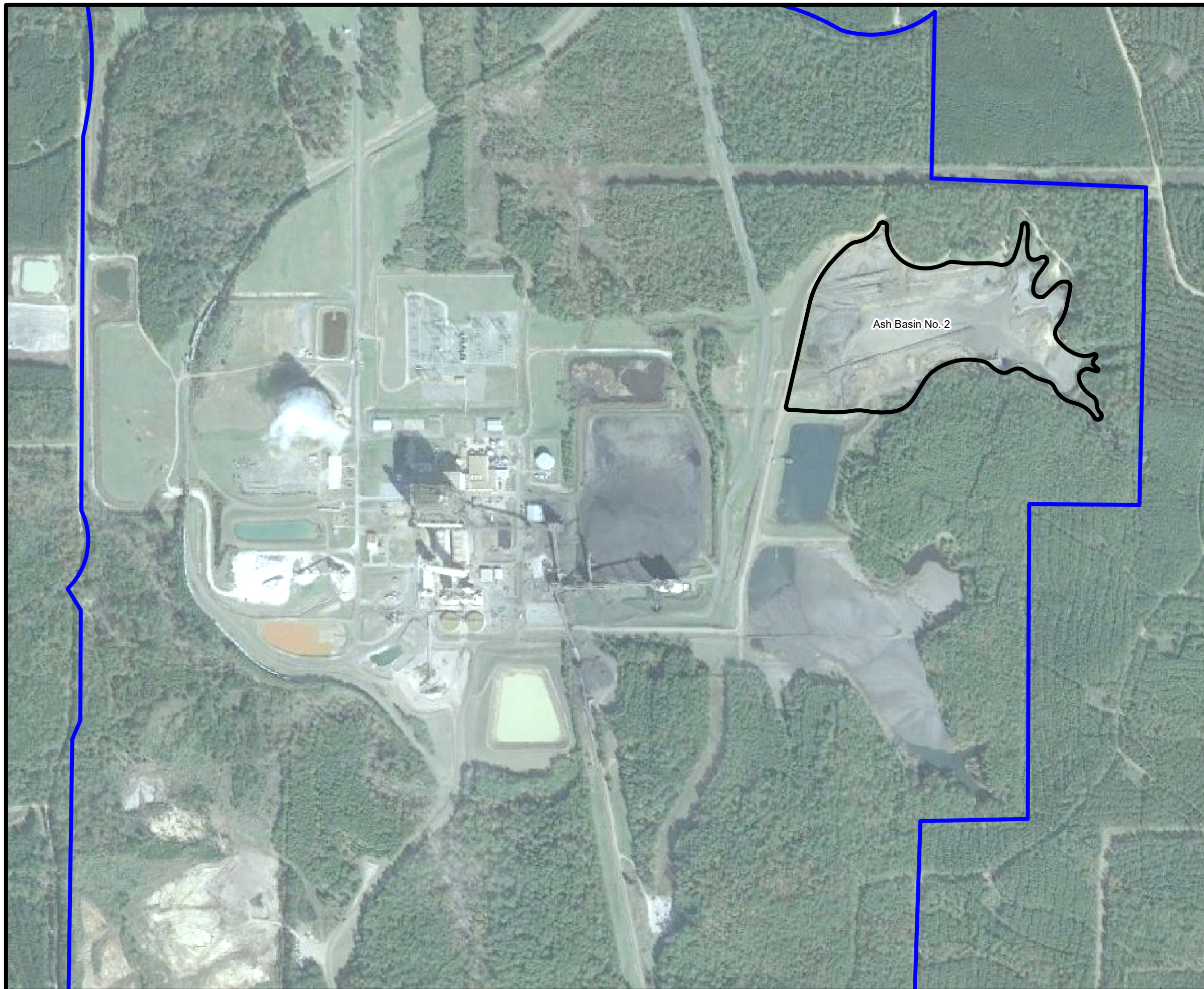


**PROVIDENCE**

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

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

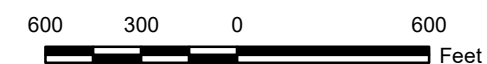


**Legend**

- Facility Boundary
- Ash Basin No 2

**Reference**

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



**Site Map**

**Seismic Impact Zones Assessment - Ash Basin No. 2**  
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. 2  
CCR SEISMIC IMPACT ZONES ASSESSMENT**

**PROFESSIONAL ENGINEER CERTIFICATION**

I hereby certify that I have performed a seismic impact zones assessment for Cleco's Dolet Hills Power Station Ash Basin No. 2 in accordance with the 40 CFR 257.63 CCR requirements. Based on the results from the seismic impact zones assessment for Ash Basin No. 2, Providence concludes that the surface impoundment is not located in a seismic impact zone that will exceed 0.10 g in 50 years. Ash Basin No. 2 meets the requirements at 257.63 of the CCR regulations.

**James C. Van Hoof**

Name

**24630**

Registration No.

**LA**

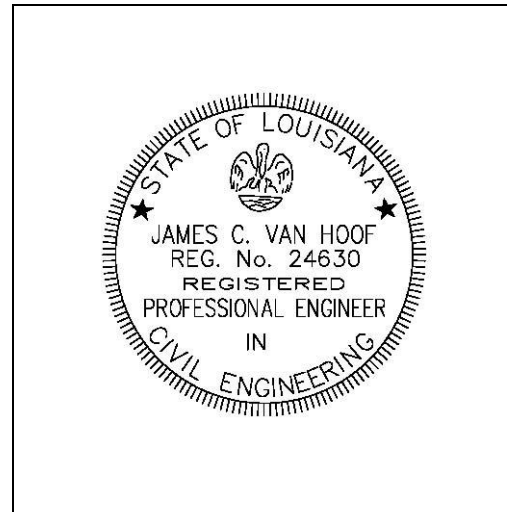
State

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

Signature

9/24/2018

Date



(Seal)