SEPTEMBER 2018

CLECO POWER LLC
DOLET HILLS POWER STATION

UNSTABLE AREAS ASSESSMENT

FLY ASH/FGD LANDFILL

Prepared By:

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Project Number 002-212

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1.0 INTRODUCTION

Providence was contracted by Cleco Power LLC (Cleco) to conduct an unstable areas assessment of the Fly Ash/FGD Landfill at Cleco's Dolet Hills Power Station. Recent Coal Combustion Residual (CCR) regulations at 40 CFR 257.64 established requirements for owners and operators to conduct an unstable areas assessment by a qualified professional engineer.

40 CFR 257.64 (a) states:

An existing or new CCR landfill, existing or new CCR surface impoundment, or any later expansion of a CCR unit must not be located in an unstable area unless the owner or operator demonstrates by the dates specified in paragraph (d) of this section that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted.

This assessment must, at a minimum, consider the following factors when determining whether an area is unstable:

- On-site or local soil conditions that may result in significant differential settling
- On-site or local geologic or geomorphologic features
- On-site or local human-made features or events (both surface and subsurface)

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 unstable area assessment pertains to the Fly Ash/FGD Landfill utilized for the Unit 1 coal-fired generation unit. A site map for the Fly Ash/FGD Landfill is included as **Figure 2**. For an existing CCR landfill, the unstable areas assessment must be completed no later than October 17, 2018.

2.0 UNSTABLE AREAS ASSESSMENT

40 CFR 257.53 states that an unstable area means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity, including some or all of the structural components of the CCR unit that are responsible for preventing releases from such unit. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

On-site or Local Soil Conditions

Providence reviewed the existing soil borings that were completed for the initial design of the Fly Ash/FGD Landfill. Providence also completed soil borings in the area adjacent to the landfill. Providence reviewed the soil conditions in the boring logs and determined that the soil conditions are stable and should not cause excessive differential settlement to the extent that the stability of the CCR landfill, or its associated features, will be compromised.

On-site or Local Geologic or Geomorphic Features

Providence has inspected the site, reviewed geological reports, reviewed boring logs, and reviewed topographic maps to evaluate the local geologic and geomorphic features that could cause the CCR unit to be unstable. No features were found that would cause the CCR unit to be unstable. The Fly Ash/FGD Landfill is not located in karst terrain, therefore sinkholes, vertical shafts, sinking streams, caves, seeps, large springs, and blind valleys are not expected.

On-site or Local Human-made Features or Events

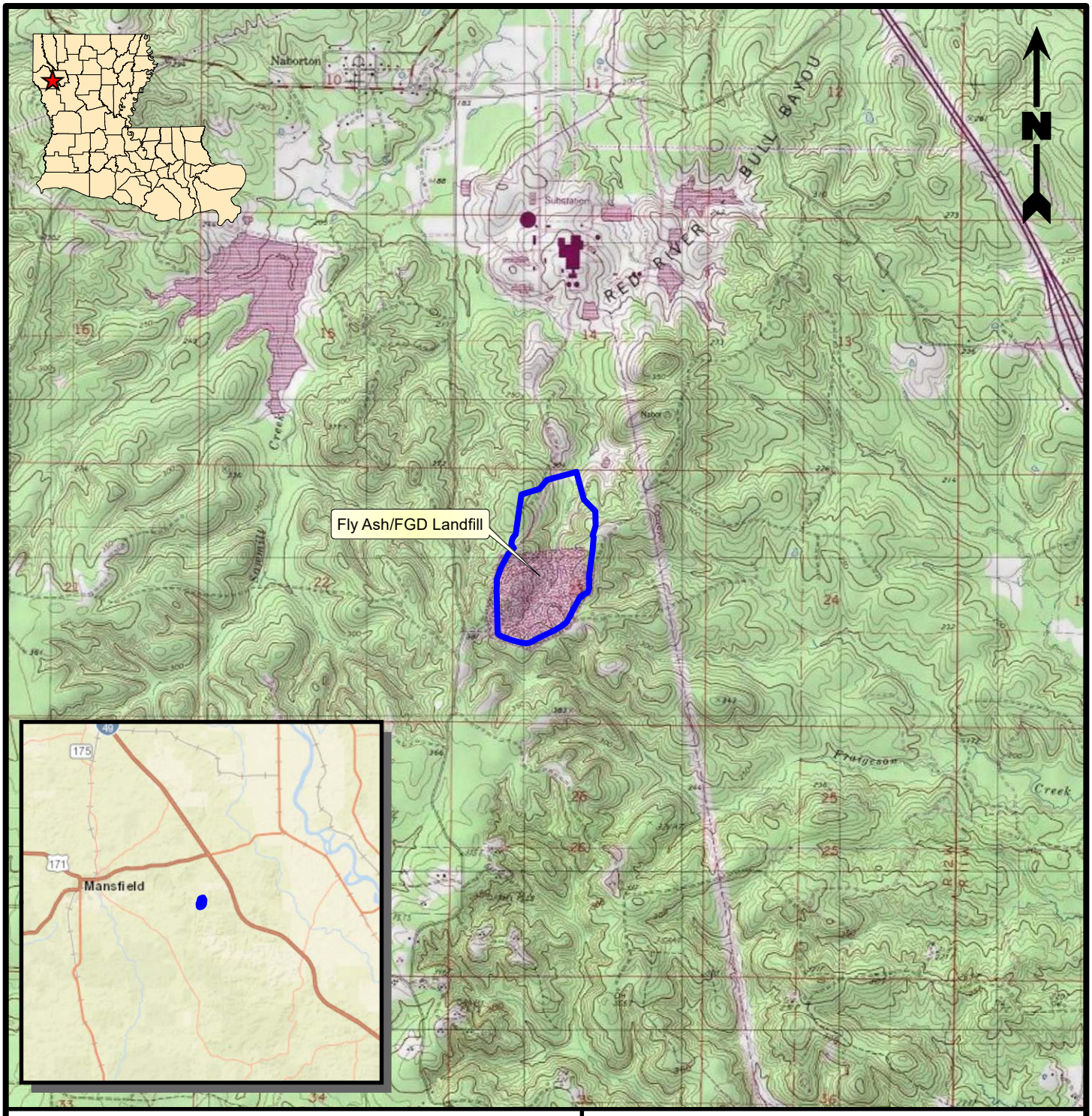
Providence reviewed the man-made features and activities associated with the CCR unit with respect to cut and fill activities during construction, and any associated man-made features of the Fly Ash/FGD Landfill. No anthropogenic features were found that would adversely affect the stability of the CCR unit.

3.0 CONCLUSION

Based on the results from the unstable areas assessment, the Fly Ash/FGD Landfill's on-site or local soil conditions, geologic or geomorphologic features, and human-made features or events, Providence concludes that the landfill is not located in unstable areas. The Fly Ash/FGD Landfill meets the requirements at 257.64 of the CCR regulations. **Appendix A** contains a P.E. Certification that attests to this assessment.

FIGURE 1

SITE LOCATION MAP



3,000 1,500 0 3,000 Feet

Legend

Facility Boundary

Reference

Base map comprised of United States Geological Survey (USGS) 7.5-minute topographic maps, "Bayou Pierre Lake, LA" and "Pelican, LA".

Site Location Map

Unstable Areas Assessment - Fly Ash/FGD Landfill
Mansfield, DeSoto Parish, Louisiana

Cleco Power LLC
Dolet Hills Power Station

PROVIDENCE

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

Project Number 002-212

Drawing Number 002-212-A005

1 Figure

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FIGURE 2

SITE MAP

N

Legend

Facility Boundary

Reference

Base map comprised of Bing Maps aerial imagery from (c) 2017 Microsoft Corporation and its data suppliers, export 06/06/17.

440 220 0 440 Feet

Site Map

Unstable Areas Assessment - Fly Ash/FGD Landfill
Mansfield, DeSoto Parish, Louisiana

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2 Figure

APPENDIX A

P.E. CERTIFICATION

CLECO DOLET HILLS POWER STATION
FLY ASH/FGD LANDFILL
CCR UNSTABLE AREAS ASSESSMENT

PROFESSIONAL ENGINEER CERTIFICATION

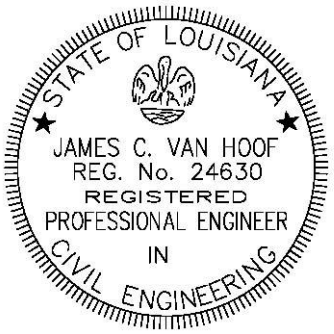
I hereby certify that I have performed an unstable areas assessment for Cleco's Dolet Hills Power Station Fly Ash/FGD Landfill in accordance with the 40 CFR 257.64 CCR requirements. Based on the results from the unstable areas assessment, the Fly Ash/FGD Landfill is not located in unstable areas.

James C. Van Hoof
Name

24630 | **LA**
Registration No. | State

James C. Van Hoof, P.E.
Signature

9/25/2018
Date



(Seal)