



GOLDER

REPORT

RETROFIT PLAN FOR FGD-A

Oak Grove Steam Electric Station

Robertson County, Texas

Submitted to:

Oak Grove Management Company LLC

Submitted by:

Golder Associates Inc.

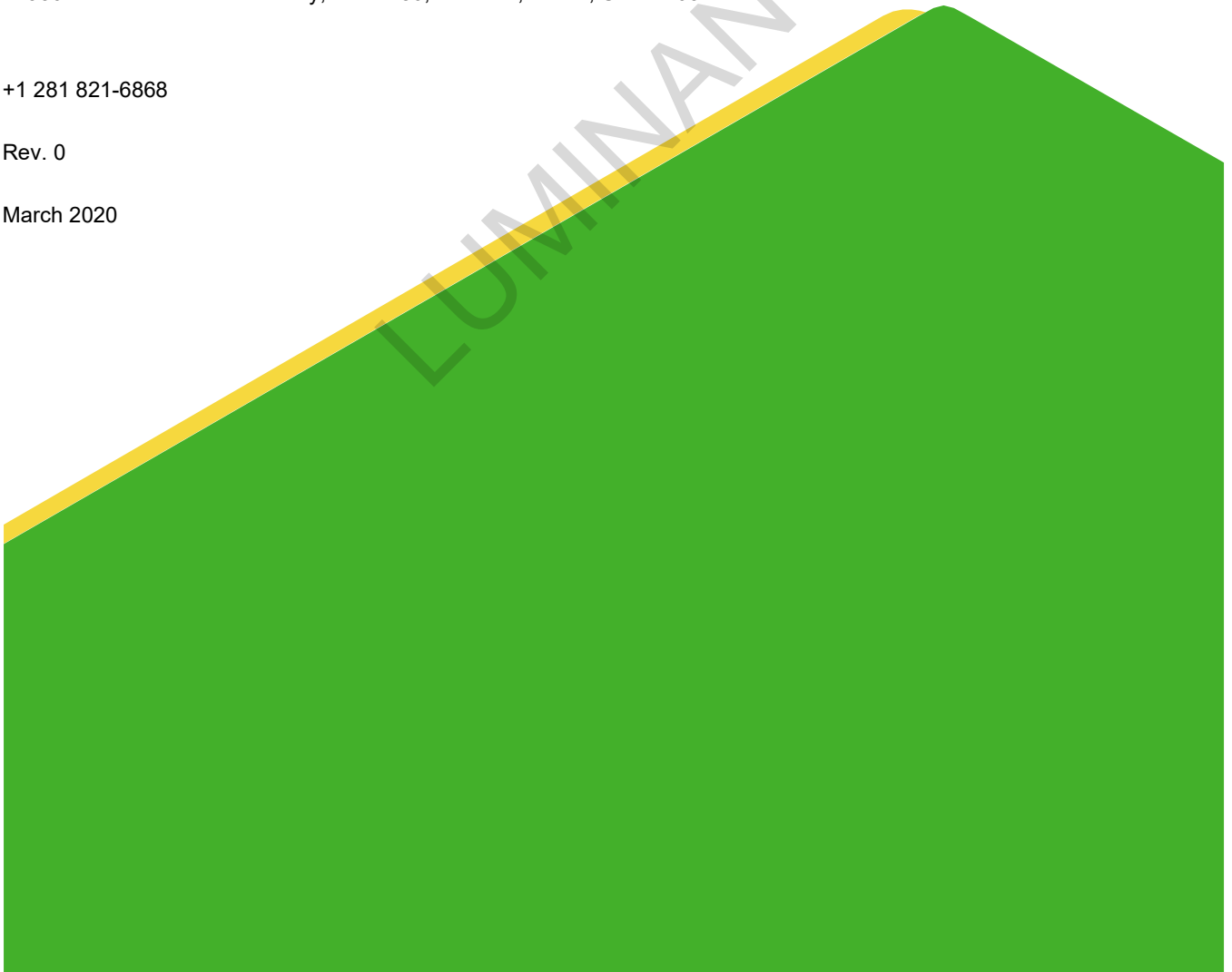
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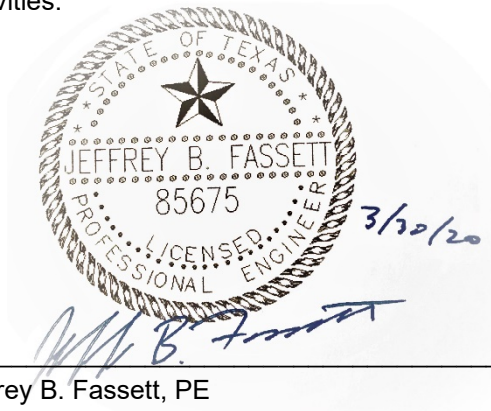
March 2020

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CERTIFICATION

Pursuant to 40 CFR § 257.102(k)(2)(iv), I hereby certify that this Retrofit Plan for the FGD-A CCR surface impoundment at the Oak Grove Steam Electric Station meets the requirements of 40 CFR § 257.102(k) for retrofit activities.



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1.0 INTRODUCTION

Oak Grove Management Company LLC (Oak Grove) operates the Oak Grove Steam Electric Station (OGSES), which is located approximately 10 miles north of the town of Franklin in Robertson County, Texas. Operation of the OGSES results in production of coal combustion residuals (CCR) that must be managed in accordance with the requirement of 40 Code of Federal Regulations (CFR) Part 257, Subpart D Standard for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (the CCR Rule).

This Retrofit Plan has been prepared to describe the activities associated with the retrofit of the FGD-A CCR surface impoundment (FGD-A) located at OGSES. This plan was prepared for Oak Grove by Golder Associates Inc.

1.1 Regulatory Background

The retrofit of FGD-A will be conducted in accordance with the requirements of 40 CFR § 257.102(k). All CCR, including any contaminated soils and sediments will be removed, and a liner compliant with 40 CFR § 257.72 will be installed.

In addition to the CCR Rule requirements, FGD-A is regulated by the Texas Commission on Environmental Quality (TCEQ) as a Class 2 non-hazardous industrial surface impoundment under 30 Texas Administrative Code (TAC) §335 – Industrial Solid and Municipal Hazardous Waste rules. The retrofit of FGD-A will be conducted in accordance with the CCR rule as described above along with any applicable state requirements.

The OGSES is registered with the TCEQ under Solid Waste Registration Number (SWR No.) 32043 and FGD-A is listed on the Notice of Registration (NOR) for the OGSES as Unit No. 011.

1.2 Site Information

The OGSES has two coal/lignite-fired units with a combined operating capacity of approximately 1,600 megawatts. CCR including fly ash, bottom ash, and gypsum/scrubber sludge are generated as part of OGSES unit operation.

There are three CCR surface impoundments (FGD-A, FGD-B, and FGD-C) at the OGSES (Figure 1). FGD-B and FGD-C are compliant with the CCR rules (including compliant composite liners) and will remain in operation during FGD-A retrofitting activities.

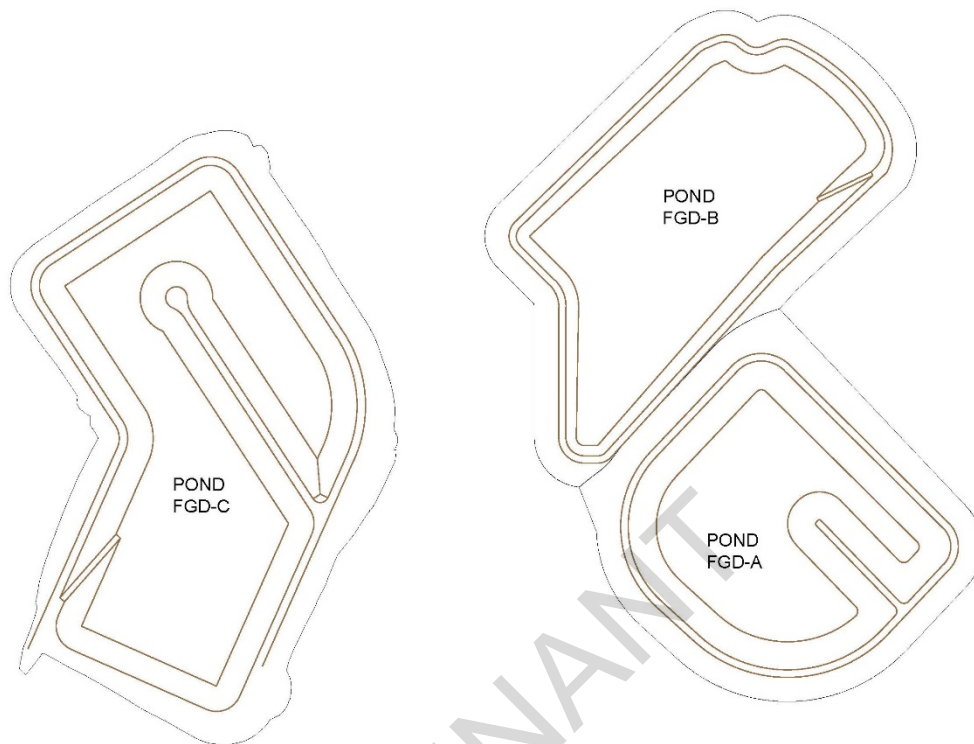


Figure 1: OGSES CCR Surface Impoundments

FGD-A, put into operation in 2009, was the first surface impoundment at the OGSES. The FGD-A CCR surface impoundment is lined with a 3-foot thick compacted clay liner with a hydraulic conductivity of no more than 1×10^{-7} centimeters per second (cm/sec).

2.0 FGD-A RETROFIT DESCRIPTION

2.1 Narrative of Measures Taken to Retrofit – § 257.102(k)(2)(i)(A)

FGD-A will be retrofitted in compliance with § 257.102(k)(1) through the removal of all existing CCR, contaminated soils and sediments and providing a liner system complying with the requirements of § 257.72.

The FGD-A retrofit measures will consist of the following.

- Removal of all remaining CCR, including any contaminated soils and sediments from within FGD-A if present
- Removal of roughly the upper 1 foot of the existing 3-foot thick clay liner
- Retrofit FGD-A with a composite liner system meeting the requirements for new CCR surface impoundments (§ 257.72)
- Incorporate design improvements to facilitate sediment control and access for future CCR removal associated with operations

Following confirmation that all CCR and any contaminated soils and sediments have been removed, FGD-A will be retrofitted with a composite liner that meets the requirements of § 257.70(b) or § 257.70(c). The composite liner will be overlain by a protective cover layer.

Design improvements, including an access ramp for future CCR removal and measures to improve sediment control will also be implemented during the retrofit.

2.2 Removal of CCR and Contaminated Soils and Sediments – § 257.102(k)(2)(i)(B)

Removal of standing water and CCR from FGD-A has recently been occurring as part of planned routine ash removal and maintenance. The liquid in FGD-A was pumped to other site CCR units, and the CCR was mechanically excavated with standard earthmoving equipment. The excavated CCR was hauled and disposed of in Ash Landfill 1. During retrofit, the removal of water and CCR will proceed similar to what has recently occurred as part of planned routine ash removal and maintenance.

The surface impoundment will be visually inspected to verify all CCR and any contaminated soils and sediments have been removed. To further ensure removal of all contaminated soils and sediments, FGD-A retrofitting will include removal of approximately the upper 1 foot of the existing 3-foot thick clay liner.

2.3 CCR Removal Volume and Area Estimate – § 257.102(k)(2)(i)(C) & (D)

The OGSES surface impoundments are periodically taken offline to remove accumulated CCR for disposal in Ash Landfill 1. It is estimated that approximately 180,000 cy of CCR currently remains in FGD-A and will be removed from FGD-A prior to liner retrofit activities. Retrofit activities will also involve removal of approximately 14,500 cy of the existing clay liner, which will also be disposed of with removed CCR in Ash Landfill 1.

Approximately 9 acres of FGD-A will be affected by the liner retrofit activities.

2.4 Schedule of Retrofit Activities– § 257.102(k)(2)(i)(E)

The retrofit activities are anticipated to begin during the summer of 2020. Absent delays caused by weather or other unforeseen factors, it is anticipated that the retrofit activities should be completed within one year (summer of 2021).

2.5 Notifications

In accordance with § 257.102(k)(2)(ii)(A), no later than 60 days prior to the date of initiating retrofit activities, Oak Grove will complete and post the Retrofit Plan to the operating record. To comply with § 257.102(k)(5), Oak Grove will also post an Intent to Initiate Retrofit notice to the operating record no later than the date the retrofit is initiated.

Within 30 days of completion of the retrofit activities, Oak Grove will post a Notification of Completion of Retrofit Activities, certified by the engineer of record licensed in Texas, to the operating record (§ 257.102(k)(6)).

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