## AMENDED CLOSURE PLAN FOR EXISTING CCR LANDFILL PLANT GORGAS BOTTOM ASH STACK CCR LANDFILL 40 C.F.R. 257.102(b) and ADEM Admin. Code r. 335-13-4-.20

### SITE INFORMATION

Site Name / Address Plant Gorgas 460 Gorgas Road Parrish, Alabama 35580

**Owner Name / Address** Alabama Power Company 600 North 18<sup>th</sup> Street Birmingham, AL 35203

CCR Unit

Plant Gorgas CCR Landfill – Bottom Ash Stack

## **Closure Method**

**Close In-Place** 

### **CLOSURE PLAN DESCRIPTION**

The Plant Gorgas Bottom Ash Stack CCR landfill will be closed by leaving CCR in place. The ash subgrade for the final cover of the Bottom Ash Stack will be graded to create a stable subgrade for construction of the final cover system. In accordance with § 257.102(d) and r. 335-13-4-.20(2)(b), the final cover will be constructed to control, minimize or eliminate, to the maximum extent feasible, post closure infiltration of liquids into the waste and potential releases of CCR from the unit. This will be prevented by providing sufficient grades and slopes; ensuring slope and cover system stability; minimizing the need for further maintenance; and completing closure in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

The final cover system will be graded so that surface water does not pond over the landfill units.

Final slopes will be no steeper than 25 percent (4H:1V).

Closure activities will begin no later than 30 days after the date of known final receipt of wastes. If the disposal units have remaining capacity and there is a reasonable likelihood that the units will receive additional waste, closure activities will begin no later than 1 year after the date of known final receipt of waste, or an extension will be requested from the Department and steps necessary to prevent threats to human health and the environment will continue to be taken.

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Within 90 days after permit expiration or when final closure requirements are achieved, Alabama Power will record a notation onto the land deed containing the property utilized for disposal and obtain environmental covenant in accordance with applicable Department regulations. A copy will be placed in the Operating Record within 120 days after closure and Alabama Power will provide a copy to the Department.

## § 257.102(b)(1)(iii) and r. 335-13-4-.20(2)(a)1 - Description of Final Cover System

The final cover for the unlined Bottom Ash Stack will be designed to minimize infiltration and erosion. Current plans are to have the cover system include a 60-mil geomembrane overlain with a geocomposite, both covered with 18 inches of protective soil having a permeability of 1 x 10<sup>-5</sup> cm/sec or less and 6 inches of topsoil. The cover system to be used meets or exceeds the requirements of § 257.102(d)(3)(ii) and r. 335-13-4-.20(2)(b)1 in that the permeability of the final cover system will be less than or equal to the permeability of the subgrade beneath the landfill. Final design will ensure the disruption of the integrity of the final cover system is minimized through a design that accommodates settlement and subsidence, in addition to providing an erosion layer for protection from wind or water erosion.

# § 257.102(b)(1)(v) and r. 335-13-4-.20(2)(a)2. – Estimate of the largest area of the CCR unit ever requiring a final cover

The Gorgas CCR unlined disposal cell covers about 56 acres. The footprint will be consolidated, and the final cover system will be applied to the consolidated footprint about 27 acres.

## § 257.102(b)(1)(iv) and r. 335-13-4-.20(2)(a)3.– Estimate of the maximum inventory of CCR ever onsite over the active life of the CCR unit

The maximum inventory of CCR ever on-site over the active life of the CCR unit is approximately 4,100,000 cubic yards. The Gorgas CCR Landfill unlined disposal cell is estimated to currently contain approximately 3,800,000 cubic yards of CCR.

## § 257.102(b)(1)(vi) and r. 335-13-4-.20(2)(a)4.- Closure Schedule

The milestones and the associated timeframes presented below are initial estimates. Some of the activities associated with the milestones will overlap. Milestones reflect approximate time to implement closure. Closure was initiated on April 15, 2019.

## Milestones

Regulatory Interface – 3 months Grading and Stabilization – 3 months Installation of final cover – 9 months Estimate of Year in which all closure activities will be completed – 2020. As the expected time for closure exceeds the 180-day closure completion requirement outlined in § 257.102(f)(1)(i) and r. 335-13-4-.20(2)(g), it is anticipated that an extension of the closure period will be requested.

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#### **Certification Statement**

### Written Closure Plan for a CCR Landfill

#### Site Name / Address

Plant Gorgas 460 Gorgas Road Parrish, AL 35580

#### **Owner Name / Address**

Alabama Power Company 600 North 18<sup>th</sup> Street Birmingham, AL 35203

#### **CCR Unit**

Plant Gorgas Bottom Ash Stack Landfill

I hereby certify that the written closure plan was prepared in accordance with the requirements of 40 C.F.R. 257.102 and ADEM Admin. Code 335-13-4-.20(2)(a)1., and that the final cover system will meet the requirements of 40 C.F.R. 257.102(d)(3) and r. 335-13-4-.20(2)(b).

James C. Pegues, 16516 Licensed State of Alabama, PE N DFESSIONA