

**CLOSURE PLAN FOR EXISTING CCR LANDFILL  
PLANT GORGAS GYPSUM LANDFILL  
40 CFR 257.102(b)**

**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 Gypsum Landfill

**Closure Method**

Close In-Place

**CLOSURE PLAN DESCRIPTION**

**§ 257.102(b)(1)(i) – Narrative description of how the CCR unit will be closed.**

The Plant Gorgas Gypsum Landfill will be closed by leaving CCR in place. In accordance with 257.102(b)(3), the written closure plan will be amended if there is a change in operation that would substantially affect the written closure plan in effect and/or if there are unanticipated events that necessitate a revision of the closure plan.

**§ 257.102(b)(1)(iii) – Closure of the CCR unit by leaving CCR in place**

**Methods and Procedures**

The Gorgas Gypsum Landfill was constructed with a composite liner system comprised of 1 foot of compacted clay liner having a maximum hydraulic conductivity of  $1 \times 10^{-5}$  cm/sec, a geosynthetic clay liner (GCL), and 60-mil HDPE liner.

The Gorgas Gypsum Landfill is maintained in a dry state, such that drainage is unnecessary. The gypsum subgrade for the final cover of the Gypsum Landfill will be graded to create a stable subgrade for construction of the final cover system. In accordance with § 257.102(d), 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 to; 1) preclude the probability of future impoundment of water, slurry, or sediment; 2) ensure slope and cover system stability; 3) minimize the need for further maintenance; and, 4) be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices.

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**Description of Final Cover System**

The final cover will be designed to minimize infiltration and erosion, and is currently designed to consist of a GCL overlain by a 60-mil HDPE liner and a double-sided geocomposite drainage layer covered with 12 inches of protective soil and 6 inches of topsoil. The cover system to be used meets or exceeds the requirements of 40 C.F.R. §257.102(d)(3)(ii) in that the permeability of the final cover system will be less than or equal to the permeability of the composite bottom liner system. 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)(iv) – Estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit**

The Gorgas Gypsum Landfill only recently became operational. It has been designed with a total capacity of about 1,800,000 cubic yards. Future use of the unit will not substantially affect the written closure plan in effect.

**§ 257.102(b)(1)(v) – Estimate of the largest area of the CCR unit ever requiring a final cover**

The Gorgas Gypsum Landfill area is about 15 acres in size. The final cover will be applied to the footprint of the CCR unit.

**§ 257.102(b)(1)(vi) – Closure Schedule**

The milestones and the associated timeframes are initial estimates. Some of the activities associated with the milestones will overlap. Milestones reflect approximate time to implement closure. Estimate of year to closure completion is based on anticipated ash generation and estimated life of the landfill.

**Milestones**

Regulatory Interface – 6 months

Grading and Stabilization – 4 months

Installation of final cover – 9 months

Estimate of Year in which all closure activities will be completed – 2036

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Certification Statement 40 CFR § 257.102(b)(4)

Initial Written Closure Plan for a CCR Surface Impoundment or Landfill

**Site Name / Address**

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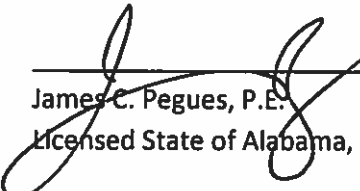
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I hereby certify that the written closure plan was prepared in accordance with the requirements of 40 CFR § 257.102, and that the final cover system will meet the requirements of §257.102(d)(3).

 10/17/18  
James C. Pegues, P.E.  
Licensed State of Alabama, PE No. 16516

