INITIAL WRITTEN CLOSURE PLAN
40 C.F.R. PART 257.102
PLANT BOWEN PRIVATE INDUSTRY SOLID WASTE DISPOSAL FACILITY
(ASH LANDFILL)
GEORGIA POWER COMPANY

SITE INFORMATION

Site Name / Address

Plant Bowen
317 Covered Bridge Rd. S.W.
Cartersville, GA 30120

Owner Name / Address

Georgia Power Company
241 Ralph McGill Blvd
Atlanta, GA 30308

CCR Unit

Plant Bowen Ash Landfill

Closure Method

Close In-Place

CLOSURE PLAN DESCRIPTION

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

Plant Bowen's Ash Landfill is comprised of active Cells 1 & 2, Cells 3 & 4, Cells 9 & 10, and future Cells 5 through 8. All cells will be closed by leaving CCR in place and installing a final cover system. 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 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

Active Cells 1 & 2 and 9 & 10 were permitted and constructed with a minimum 24 – inch compacted clay liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec. Cells 3 & 4 were permitted and constructed with a composite liner system consisting of a minimum 24 - inch compacted clay layer with a maximum hydraulic conductivity of 1×10^{-7} cm/sec. A 60 mil HDPE geomembrane overlies the clay layer. The composite liner system is completed with a geocomposite drainage layer with a minimum 24-inch thick sand drainage/protection layer (leachate collection & removal system). A structural fill layer with a maximum hydraulic conductivity of 1×10^{-6} cm/sec underlies the compacted clay liner for both liner systems. The structural fill layer varies in thickness from a minimum of 5 ft. to 13 ft.

The ash subgrade for the final cover for active and future cells will be graded to create a stable subgrade for 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, sediment, or slurry; 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.

Description of Final Cover System

The final cover system for active Cells 1 & 2 and 9 & 10 will be designed to minimize infiltration and erosion. The cover system to be used is currently being evaluated and final design is not yet complete. The final cover system, at a minimum, will be designed to meet or exceed the requirements of 40 C.F.R. § 257.102(d)(3)(i) or (ii) (traditional and alternative cover system) in that the permeability of the final cover system will be less than or equal to the permeability of the compacted clay liner.

The final cover system for active Cells 3 & 4 and for future Cells 5 through 8 will consist of a 60-mil HDPE geomembrane overlying the prepared subgrade. A drainage geocomposite, overlying the HDPE geomembrane, will be covered with a minimum 18-inch protective soil layer and a minimum 6 – inch topsoil layer capable of sustaining vegetative growth. This final cover system will minimize infiltration and erosion and meets the requirements of 40 C.F.R. § 257.102(d)(3)(i) in that the permeability of the final cover system will be less than or equal to the permeability of the bottom liner system.

Final cover designs 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 Plant Bowen landfill has an estimated capacity of approximately 11,410,260 cubic yards of CCR. 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 Plant Bowen landfill has a combined area of approximately 134 acres that would require final cover.

§ 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 durations reflect approximate lengths rather than time to implement closure. The closure completion date is based on current projected generation and disposal rates and is subject to change.

Estimated Milestone Durations

Subgrade Grading & Preparation – 4 months (per cell)
Installation of final cover – 6 months (per cell)
Estimate of Year in which all closure activities will be completed - 2029

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

Initial Written Closure Plan

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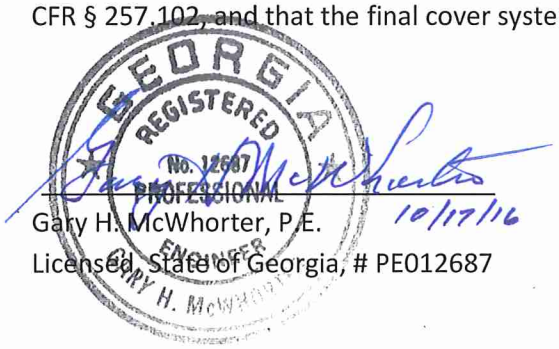
I hereby certify that the written closure plan was prepared in accordance with the requirements of 40 CFR § 257.102, and that the final cover system will meet the requirements of § 257.102(d)(3).



10/17/16

Gary H. McWhorter, P.E.
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