## CLOSURE PLAN FOR EXISTING CCR SURFACE IMPOUNDMENT PLANT BARRY ASH POND 40 CFR 257.102(b)

### **SITE INFORMATION**

Site Name / Address

Plant Barry 15300 Highway 43 North Bucks, Alabama 36512

**Owner Name / Address** 

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

**CCR Unit** 

Plant Barry Ash Pond

**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 Barry Ash Pond will be closed by leaving CCR in place, with some consolidation of ash to reduce the closure footprint. 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 pond will be dewatered sufficiently to remove the free liquids and to an extent to provide a stable base for the construction of an ash containment structure for the consolidated footprint, excavation of ash outside the consolidated footprint and, construction of the final cover system. CCR will be excavated from the area outside the consolidated footprint, transported, and disposed of in the consolidated footprint to create a subgrade for the final cover system. Excavation will include removing all visible ash and over excavating into the subgrade soils.

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 system 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 natural subsoils present beneath the surface impoundment, but no greater than  $1 \times 10^{-5}$  cm/sec. The final cover, at a minimum, will consist of an 18-in infiltration layer overlain by 6-in of soil capable of sustaining vegetative growth, or instead may consist of an alternate cover system utilizing low permeability geosynthetic materials. 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 Plant Barry Ash Pond currently contains approximately 16,750,000 cubic yards of CCR. Estimated maximum inventory of ash is approximately 18,000,000 cubic yards. Future use of the unit will not substantially affect the written closure plan.

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

The Barry Ash Pond is about 597 acres in size. The final cover will be applied to the consolidated footprint of the CCR unit, i.e., an area of less than 597 acres.

### § 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 instead of dates since there is no specific date yet established to initiate closure. However, it is anticipated that closure will begin in 2019. An extension of the time required to complete closure will be needed given the size of the ash pond and the time required to dewater and consolidate/stabilize the ash and then complete final cover installation.

### Milestones

Regulatory Interface – 6 months

Dewatering – 1 year

Consolidation and stabilization – 5 years

Installation of final cover – 1-2 years

Estimate of Year in which all closure activities will be completed – 2027

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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

Plant Barry 15300 Highway 43 North Bucks, Alabama 36512

Owner Name / Address

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

**CCR Unit** 

Plant Barry Ash Pond

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).

James C. Pegues, P.P.

Licensed State of Alabama, PE No. 16516