CLOSURE PLAN FOR EXISTING CCR SURFACE IMPOUNDMENT
40 CFR §257.102 (b)

Rev 1 Page 1 of 2
January 24, 2018

SITE INFORMATION

Site Name / Address: Coleto Creek Power Station, 45 FM 2887 Farmers, Goliad County, TX
Owner Name / Address: Coleto Creek Power, LP 1500 East Plaza Drive Collinville, IL 62234

CRR Unit

Reason for Initiating Closure

Final Cover Type

Known final receipt of waste/Final removal of beneficial reuse materials

Closure Method

Soil/Synthetic Liner System

Close In Place

CLOSURE PLAN DESCRIPTION

(b)(3)(i) – Narrative description of how the CCR unit will be closed in accordance with this section.

The Primary Ash Pond will be closed such that contained CCR solids will remain in-place. In accordance with §257.102(b)(3), this written closure plan will be amended to provide additional details after the final engineering design for the grading and cover system is completed. This closure plan reflects the best information available to date, and the plan may be amended in the future.

(b)(3)(ii) – If closure of the CCR unit will be accomplished by leaving CCR in place, a description of the final cover system and methods and procedures used to install the final cover.

First, the Primary Ash Pond will be dewatered with the resulting water to be discharged through existing TPOES Outfall No. 003. CCR solids will be graded and leveled, then covered with a final cover system as described below. Existing perimeter dikes will remain intact and the final cover system will tie into these dikes. The cover system will consist of the following elements, listed in order from contact with the CCR to the top: 1) subgrade leveling fill (as needed); 2) 1 foot thick soil liner with a permeability not to exceed the permeability of 1 x 10^-6 cm/sec; 3) Synthetic Liner System consisting of Geosynthetic Clay Liner (GCL), Textured (both sides) 40 Mil Linear-Long Density Polyethylene Flexible Membrane Liner (LLDPE-FML), Double Sided Geotextile fabric on both sides) Geonet Drainage Layer; and 4) 24-inch Protective/Vegetative Soil Layer. The top of the final cover system will be vegetated to minimize erosion. The final cover will be sloped to promote drainage and storm water runoff.

(b)(3)(iii) – How the final cover system will achieve the performance standards of §257.102 (c).

The permeability of the final cover will be equal to or less than the permeability of the bottom liner or a permeability no greater than 1 x 10^-6 cm/sec, whichever is less, and will be graded to prevent ponding and promote drainage.

The final cover will be sloped across the unit as needed to preclude the probability of future impoundment of water, sediment, or slurry.

The permeability of the final cover will be equal to or less than the permeability of the bottom liner or a permeability no greater than 1 x 10^-6 cm/sec, whichever is less, and will be graded to prevent ponding and promote drainage.

The top of the vegetated final cover system will be sloped and the outsides of the perimeter dikes will be vegetated as necessary to minimize the potential for erosion. The cap system will be designed by a Qualified Professional Engineer in a manner to prevent sloughing or movement of the final cover system and geotechnical testing and evaluation will be performed as needed during and after construction to confirm that engineering slope stability standards have been achieved.

(b)(3)(iv) – Minimize the need for further maintenance of the CCR unit.

The vegetative cover will be regularly mowed and maintained to minimize the potential for erosion or other structural issues that would cause more extensive and long-term maintenance issues. The storm water control system will be regularly inspected for proper operation.

(b)(3)(v) – Free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residue.

Infiltration of liquids through the closed CCR unit will be minimized. The permeability of the final cover will be equal to or less than the permeability of the bottom liner or a permeability no greater than 1 x 10^-6 cm/sec, whichever is less, and will be graded to prevent ponding and promote drainage.

The unit will be dewatered sufficiently to remove the free liquids to provide a stable base for the construction of the final cover system.

The final cover system will be constructed as described above in accordance with (b)(3)(ii) and will minimize infiltration and erosion.

The final cover will be equal to or less than the permeability of the existing bottom liner or no greater than 1 x 10^-6 cm/sec, whichever is less. This will be verified during construction per the construction quality assurance plan to be developed in conjunction with the detailed amended closure plan.

(b)(3)(vi) – The design of the final cover system must be included in the written closure plan.

When the final design of the final cover system is completed, the written closure plan will be amended to include the detailed final design.

(b)(3)(vii) – The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsis present, or a permeability no greater than 1 x 10^-5 cm/sec, whichever is less.

Infiltration of liquids through the closed CCR unit will be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earth material that is capable of sustaining natural plant growth.

(b)(3)(viii) – The design of the integrity of the final cover system must be maintained through a design that accommodates settling and subsidence.

Infiltration of liquids through the closed CCR unit will be minimized by the placement of a 24-inch thick protective/vegetative soil layer over the Geonet drainage layer.

INVENTORY AND AREA ESTIMATES

(b)(1)(i) – Estimation of the inventory of CCR ever on the site ever the area of the CCR unit

Approx. 10 million cubic yards.

(b)(1)(ii) – Estimate of the largest area of the CCR unit ever requiring a final cover

Approx. 190 acres

CLOSURE SCHEDULE

(b)(2) – Initial Written Closure Plan Placed in Permanent Record

By October 17, 2016

Note: At the time of this Written Closure Plan, there are no immediate plans to close the Primary Ash Pond. The Primary Ash Pond is currently actively managing CCR wastes generated during operation of the coal-fired power plant. CCR waste is also actively removed from the Primary Ash Pond for off-site beneficial use. This practice is expected to continue after the pond no longer accepts CCR solids. The information presented in this plan, therefore, provide an overview of major tasks associated with final closure of the Primary Ash Pond and a schedule relative to the timeframes specified in the rule. This Closure Plan will be amended with more specific information once closure activities have been initiated.
The owner or operator must commence closure of the CCR unit no later than 30 days after the date on which the CCR unit: Removed the known final volume of CCR from the CCR unit for the purpose of beneficial use of CCR.

Closure activities will commence 30 days after known final receipt of CCR waste and removal of the last known quantity of CCR from the Primary Ash Pond for the purpose of beneficial reuse, which for the purposes of this plan is assumed to be the year 2045. Closure activities will consist of the following components which will be implemented between 2045 and 2050:

1) §257.102(g) Preparation of Notice of Intent to close a CCR Unit
2) Agency coordination
3) Mobilization
4) Reroute plant process water pipes and dewater and stabilize CCR
5) Grading of CCR material to final design grades
6) Installation of cap system
7) §257.102(h) Preparation of Notification of Closure of a CCR Unit
8) §257.102(h)(i) Deed Notation

Certification by qualified professional engineer appended to this plan.
Certification Statement 40 CFR § 257.102 (b)(4) – Written Closure Plan for a CCR Surface Impoundment or Landfill

CCR Unit: Coleto Creek Power, LP; Coleto Creek Power Station; Coleto Creek Primary Ash Pond

I, Daniel Bullock, being a Registered Professional Engineer in good standing in the State of Texas, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the information contained in the written closure plan, dated January 24, 2018, meets the requirements of 40 CFR § 257.102.

Daniel Bullock, P.E. (TX 82596)
Bullock, Bennett & Associates, LLC
Firm Registrations: Engineering F-8542, Geoscience 50127
Certification Statement 40 CFR § 257.102 (d)(3)(iii) – Design of the Final Cover System for a CCR Surface Impoundment or Landfill

CCR Unit: Coleto Creek Power, LP; Coleto Creek Power Station; Coleto Creek Primary Ash Pond

I, Daniel Bullock, being a Registered Professional Engineer in good standing in the State of Texas, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Unit, that the conceptual-level design of the final cover system as included in the written closure plan, dated January 24, 2018, meets the requirements of 40 CFR § 257.102.

Daniel Bullock, P.E. (TX 82596)
Bullock, Bennett & Associates, LLC
Firm Registrations: Engineering F-8542, Geoscience 50127