

CLOSURE PLAN

CFR 257.102(b)

Bottom Ash Pond

**Big Sandy Plant
Louisa, Kentucky**

**October, 2016
Revised November, 2017**

Prepared for : Kentucky Power – Big Sandy Plant

Louisa, Kentucky

Prepared by: American Electric Power Service Corporation

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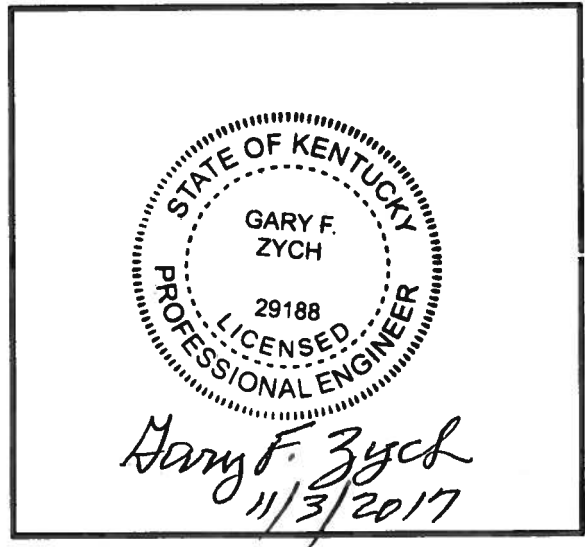
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CLOSURE PLAN (REVISED NOV 2017)
CFR 257.102(b)
BIG SANDY PLANT
BOTTOM ASH POND

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I certify to the best of my knowledge, information, and belief that the information contained in this closure plan meets the requirements of 40 CFR § 257.102

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1.0 OBJECTIVE

This report was prepared by AEP- Geotechnical Engineering Services (GES) section to fulfill requirements of CFR 257.102(b) for Closure Plans of Existing CCR Surface Impoundments

2.0 DESCRIPTION OF THE CCR UNIT

The Big Sandy Power Plant is located north of the City of Louisa, Lawrence County, Kentucky. It is owned and operated by Kentucky Power. The facility operates two surface impoundments for storing CCR called the Fly Ash Pond and the Bottom Ash Pond. This report deals with the closure plan for the Bottom Ash Pond.

The Bottom Ash Pond is comprised of diked embankments on the East, West, South sides with the north side abutting the adjoining hillside. The Bottom ash pond is split into north and south cells. The Bottom Ash Pond discharges into the Clearwater pond (north/south) which discharges into the Reclaim pond where water is pumped to the Fly Ash Pond.

The Big Sandy Power Plant has ceased burning coal and been refueled for natural gas.

3.0 DESCRIPTION OF CLOSURE PLAN 257.102(b)(1)(i)

[A narrative description of how the CCR unit will be closed in accordance with this section]

Closure of the Bottom Ash pond will be by removal of the CCR material. The Big Sandy Plant continues to operate as a gas fired plant.

4.0 CLOSURE BY REMOVAL 257.102 (b)(1)(ii)

[If closure of the CCR unit will be accomplished through removal of CCR from the CCR unit, a description of the procedures to remove the CCR and decontaminate the CCR unit in accordance with paragraph (c) of this section.]

Closure by removal of CCR will include removal of all CCR from the CCR unit. The removal of all CCR from the CCR unit and any areas subsequently determined to have been affected by releases from the CCR unit will be accomplished by excavation of the CCR material, then hauling and placing of the material in the Big Sandy Fly Ash Pond. The procedures for removal or decontamination of any areas affected by releases from the CCR unit to the underlying and surrounding soils will be determined following an evaluation of the nature and extent of any contamination. Following removal of the final quantities of CCR, the soil dikes will be pushed-in and the area will be graded-to-drain using clean borrow soils as needed and seeded.

4.1 CLOSURE PERFORMANCE STANDARDS 257.102 (c)

[An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring concentrations do not exceed the groundwater protection standard established pursuant to §257.95(h) for

constituents listed in appendix IV to this part.]

Closure of the CCR unit will be completed when all CCR in the unit and any areas affected by releases from the CCR unit have been removed and groundwater monitoring demonstrates that all concentrations of the assessment monitoring constituents listed in appendix IV to part 257 do not exceed either statistically equivalent background levels or MCLs for two consecutive sampling events using the statistical procedures in § 257.93(g).

5.0 ESTIMATE OF MAXIMUM CCR VOLUME 257.102 (b)(1)(iv)

[An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.]

The operational capacity of the Bottom Ash Pond is approx. 22 acre-ft (11 acre-ft per cell). The maximum CCR capacity of the bottom ash pond would be approx. 30 acre-ft based on top of dike.

6.0 ESTIMATE OF LARGEST AREA OF CCR REQUIRING COVER 257.102 (b)(1)(v)

[An estimate of the largest area of CCR unit ever requiring a final cover]

This pond will be closed by removal of CCR materials as such this section is not applicable.

7.0 CLOSURE SCHEDULE 257.102(b)(1)(vi)

[A schedule for completing all activities necessary to satisfy the closure criteria in the section, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of the CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of the CCR unit closure.]

Big Sandy Plant ceased placing CCR materials in the Bottom Ash pond in November 2015 as Unit 1 ceased burning coal and was refueled to burn natural gas. Currently, the gross amount of bottom ash has been removed from the Bottom Ash Pond and beneficially used for the closure of the fly ash pond. The schedule is for engineering and permitting of the final removal of CCR materials from the bottom ash pond and the new outfall in 2017/2018 with the necessary construction completed in 2018. If groundwater monitoring indicates a need for additional remediation, that activity will be scheduled following a determination of the nature and extent of any contamination. Below is a milestone schedule of significant work activities for the closure.

Acquire State/Local Permits	August 2017
Begin removal of residual bottom ash	November 2017
Complete removal of residual bottom ash	December 2017
Push-in soil dikes and grade area to drain	December 2017
Place mulch and winter seeding	December 2017
Repair/reseed	April 2018