

December 17, 2015

**Reference: Notification of Intent to Initiate Closure – Inactive CCR Surface Impoundment
EPA Final CCR Rule (40 CFR §257.100)
West Ash Pond
FB Culley
Newburgh, Indiana**

AECOM has been retained by Southern Indiana Gas and Electric Company (SIGECO, dba Vectren Energy) to prepare the following assessment of the EPA's requirements under the HAZARDOUS AND SOLID WASTE MANAGEMENT SYSTEM; DISPOSAL OF COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES [RIN-2050-AE81; FRL-9149-4] (EPA Final CCR Rule) associated with the notice of intent to initiate closure of an inactive CCR surface impoundment. Presented below is the project background, narrative for closure activities, schedule for closure activities, limitations, and certification.

1.0 BACKGROUND

40 CFR §257.100(b) of the EPA Final CCR Rule states that should an inactive CCR surface impoundment close in accordance with the standards of 40 CFR §257.100(b)(1)-(4) or (b)(5) no later than April 17, 2018, it is exempt from all other requirements of the EPA Final CCR rule. 40 CFR §257.100(c)(1) states that an owner or operator of an inactive CCR surface impoundment intending to close in accordance with 40 CFR §257.100(b) must prepare and place in the facility's operating record a notification of intent (NOI) to initiate closure of the CCR surface impoundment.

In accordance with 40 CFR §257.100(c)(1), SIGECO hereby states that the West Ash Pond located at the FB Culley Generating Station is an inactive CCR surface impoundment and will be closing under the requirements of 40 CFR §257.100(b). In addition, this notification includes the following items:

- A narrative description of how the CCR surface impoundment will be closed,
- A schedule for completing closure activities, and
- The required certifications under paragraphs (b)(4) and (6) of 40 CFR §257.100, if applicable.
 - 40 CFR §257.100(b)(4) refers to the PE certification stating that the design of the final cover system meets the requirements (e.g., design criteria) of 40 CFR §257.100(b)(3)(i) or (ii).
 - 40 CFR §257.100(b)(6) refers to the PE certification stating that closure of the CCR surface impoundment under either 40 CFR §257.100(b)(1)-(4) or (b)(5) is technically feasible within the timeframe in 40 CFR §257.100 (b) of 40 CFR § 257.100.

2.0 NARRATIVE DESCRIPTION OF CLOSURE ACTIVITIES

Closure of the West Ash Pond will require modification of the current pond system. The following general tasks are anticipated as part of the closure process.

The remainder of the Culley West Pond will be dewatered to facilitate closure and closed in place. A portion of the West Pond will be closed by removing and, where necessary, decontaminating all areas affected by releases from the CCR unit. The pond will be dewatered and the CCR surface exposed.

The ash removed from the portion to be closed by removing ash, will be dewatered and used as engineered fill in the portion of the pond that will be closed in-place. Soil backfill will be placed in the portion where ash was removed to the required elevations to properly drain stormwater runoff.

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CCR material from within the pond will be placed and graded as engineered fill in the close in place portion to bring the grade up to the design slopes. A geomembrane liner will be installed over the cap of the northern portion and tied into the berms. A single-sided geocomposite drainage layer will overlay the geomembrane liner. Earthen material as the infiltration layer will be placed and graded to meet the thickness as discussed above. Earthen material will be placed to create a 6" soil erosion layer that will sustain plant growth.

Closure operations will involve: (i) excavation of CCR from the southern half of the pond for use as cover and backfilling; (ii) regrade/place fill to create acceptable grades for closure of the northern half of the west ash pond; (iii) install final cover, (iv) close by removal within the southern half; and (v) regrade to create a lined process pond for the facility and a stormwater detention pond to handle stormwater from the cap

The final cover system will be installed in direct contact with graded CCR or engineered fill to achieve final subgrade elevations and will include (from bottom up):

- 1) a geomembrane;
- 2) single-sided geocomposite drainage layer;
- 3) 18" of protective cover soil (infiltration layer);
- 4) 6" of soil capable of sustaining vegetative growth (erosion layer); and
- 5) vegetated with native grasses.

The final cover slope will be graded to convey stormwater runoff to discharge through an NPDES permitted outfall. The final cap system design will accommodate settling and subsidence so to preserve the cap system's integrity. Vegetation will be established across the site.

3.0 SCHEDULE FOR COMPLETING CLOSURE ACTIVITIES

The tentative schedule for closure activities includes:

- Q1 of 2016 through Q3 of 2016
 - Dewatering of ash
- Q2 of 2016 through Q1 of 2018
 - Excavation of ash material
 - Site grading
 - Construction of the engineered cap system
 - Establishment of vegetation
- April 17, 2018
 - Deadline for completion of closure activities

4.0 LIMITATIONS

The signature of AECOM's authorized representative on this document represents that to the best of AECOM's knowledge, information and belief in the exercise of its professional judgment, it is AECOM's

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professional opinion that the aforementioned information is accurate as of the date of such signature. Any recommendation, opinion, or decisions by AECOM are made on the basis of AECOM's experience, qualifications and professional judgment and are not to be construed as warranties or guaranties. In addition, opinions relating to environmental, geologic, and geotechnical conditions or other estimates are based on available data and actual conditions may vary from those encountered at the times and locations where data are obtained, despite the use of due care.

Any schedule dates and duration timelines for construction activities are tentative and subject to change. The only date subject to a critical deadline is the completion of closure date by April 17, 2018 as stated in 40 CFR § 257.100 (b).

Any recordkeeping requirements (i.e., placement of documents in the facility's operating record) are outside the scope and control of the certifying engineer.

5.0 CERTIFICATION

Certification Statement for 40 CFR § 257.100 (b)(4) (Design of the Final Cover System for an Inactive CCR Surface Impoundment) and 40 CFR § 257.100 (b)(6) (Design of the Final Cover System for an Inactive CCR Surface Impoundment)

CCR Unit: FB Culley, West Ash Pond

I, John D. Priebe, being a Professional Engineer in good standing in the State of Indiana (PE10000303), do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification is prepared in accordance with the accepted practice of engineering. I certify pursuant to 40 CFR 257.100 (b)(4) that the design of the final cover system defined herein meets the requirements in 40 CFR § 257.100 (b)(3)(ii). I further certify pursuant to 40 CFR § 257.100 (b)(6) that the closure of the CCR surface impoundment under 40 CFR § 257.100 (b)(1) through (4), as described herein, is technically feasible within the timeframe in 40 CFR §257.100 (b) of 40 CFR § 257.100.

John D. Priebe, PE
AECOM
525 Vine Street, Suite 1800
Cincinnati, Ohio 45202
(513) 651-3440

