

**Notice of Intent to Comply with the Alternative Closure Requirements of
40 C.F.R. § 257.103
Gallatin Fossil Plant
Ash Pond Complex (APC)**

TVA is filing this notice of intent to comply with the alternative closure requirements of 40 C.F.R. § 257.103 for the Ash Pond Complex (APC) at Gallatin Fossil Plant (GAF). The APC includes the Bottom Ash Pond, Middle Pond A, Ash Pond A and Ash Pond E. The bottom ash at GAF is currently being sluiced to the APC. These ponds then flow to the Stilling Pond Complex (which is not regulated by the CCR Rule) for ultimate discharge through the permitted NPDES outfall 001. TVA is constructing facilities to convert the bottom ash handling from wet to dry. The facilities are anticipated to be completed within approximately three months of the April 17, 2019 notification date of intent to comply with the alternative closure requirements. Following that, closure of the APC will be initiated in accordance with 40 C.F.R. § 257.102 of the CCR Rule and applicable state law requirements.

TVA certifies that bottom ash must continue to be managed in the APC due to the absence of alternative disposal capacity. Until the conversion projects are in place, no alternative disposal capacity is available on-site or off-site for the wet sluiced bottom ash generated by GAF. By demonstrating compliance with 40 C.F.R. § 257.103(a)(1), the timeframe in 40 C.F.R. § 257.101(b)(1) for ceasing placing CCR and waste streams in the APC does not apply (*see* 40 C.F.R. § 257.101(b)(4)), and TVA may continue to use the APC until additional disposal capacity is available. TVA will continue to make efforts to obtain additional capacity, and will utilize this capacity as soon as feasible. TVA will continue to remain in compliance with all other requirements of the CCR Rule, including the requirement to conduct any necessary corrective action. In the unlikely event the conversion projects are not completed within 13 months of this notice, the first annual progress report will be prepared, documenting the continued lack of alternative capacity and the progress towards the development of alternative disposal capacity. If required, subsequent annual reports will be filed in the operating record within 12 months of the previous annual report. When alternative disposal capacity is secured, TVA will cease receiving waste streams in the APC and initiate closure in accordance with the timeframes in 40 C.F.R. § 257.102(e).

Attachment: Demonstration of Compliance with the Alternative Closure Requirements of 40 C.F.R. § 257.103, Gallatin Fossil Plant, Ash Pond Complex (APC)

Demonstration of Compliance with the Alternative Closure Requirements of 40 C.F.R. § 257.103 Gallatin Fossil Plant Ash Pond Complex (APC)

The Tennessee Valley Authority (TVA) has requested that AECOM determine whether the Gallatin Fossil Plant (GAF) Ash Pond Complex (APC) has the ability to meet the Alternative Closure Requirements for No Alternative CCR Disposal Capacity (40 CFR § 257.103) as defined in the United States Environmental Protection Agency (USEPA) “Disposal of Coal Combustion Residuals from Electric Utilities Final Rule” (CCR Rule) published in the Federal Register on April 17, 2015 (EPA, 2015).

BACKGROUND

TVA’s GAF is located on approximately 1,950 acres of land on the north bank of the Cumberland River in Sumner County, Tennessee. GAF operates four coal-fired, steam-generating units and combusts an average of 12,350 tons of coal per day, resulting in approximately 20,000 tons of dry scrubber CCR and 4,000 tons of wet-sluciced bottom and economizer ash (bottom ash) per month. The dry scrubber CCR is disposed of in the permitted, on-site lined landfill. The wet-sluciced bottom ash is managed in the Ash Pond Complex (APC), which includes the Bottom Ash Pond, Middle Pond A, Ash Pond A and Ash Pond E. Specifically, the bottom ash sluice stream flows from the Plant in several pipes and discharges directly into the Bottom Ash Pond, where the bottom ash settles as it flows through a channel in the pond system. As part of routine maintenance of the sluice channel, settled bottom ash is periodically removed and stacked within the Bottom Ash Pond. The bottom ash sluice water continues treatment throughout the APC and Stilling Ponds until reaching final discharge at the NPDES permitted Outfall 001 (refer to Figure 1 below).

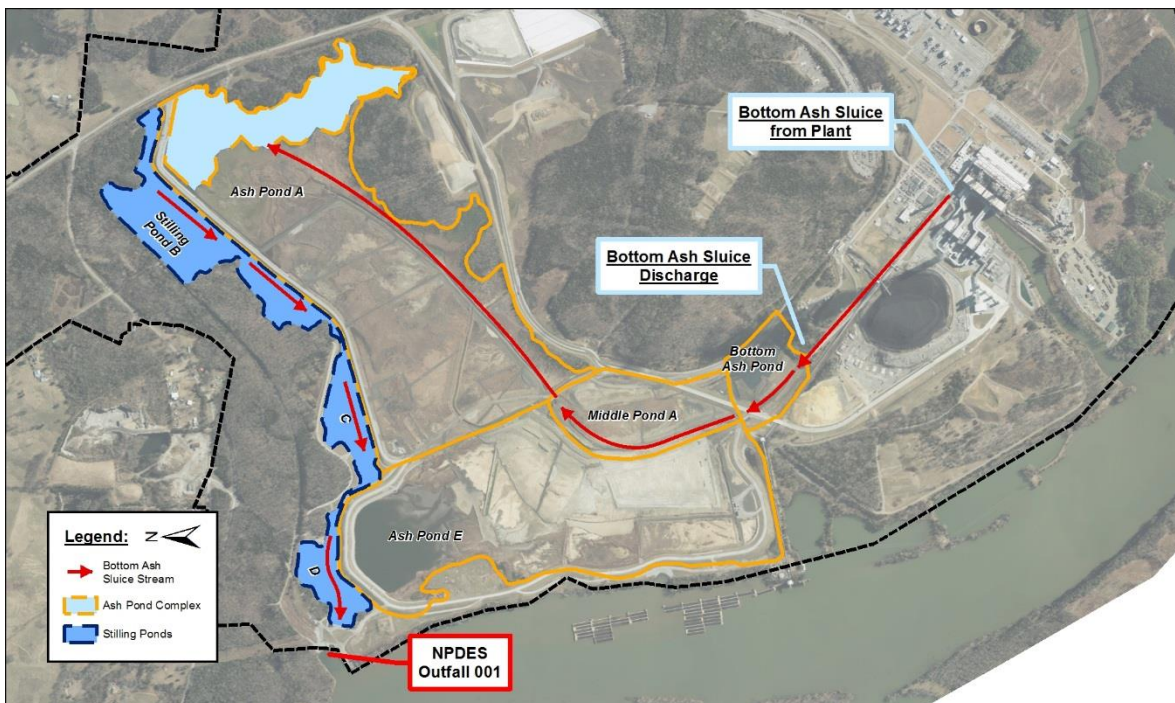


Figure 1: Existing Bottom Ash Sluicing Operations

The GAF APC is a series of existing CCR surface impoundments and is subject to CCR Rule requirements. Because TVA did not demonstrate that the GAF APC meets the location restriction requirements (40 C.F.R. §§ 257.60-257.64), the result under the CCR Rule at 40 C.F.R. § 257.101(b)(1) is that TVA must cease sending waste streams to the impoundments on April 17, 2019, and initiate closure in accordance with 40 C.F.R. § 257.102. Notwithstanding the provision of § 257.101(b)(1), TVA may continue to utilize the GAF APC due to the absence of alternative disposal capacity upon meeting the requirements set forth in 40 CFR § 257.103(a).

TVA has initiated measures to convert the wet-sluciced bottom ash process to a dry process with ultimate disposal in the permitted, on-site lined landfill. This bottom ash conversion project is scheduled to be completed and operational by February 2020. In addition, TVA has designed, permitted, and is constructing an interim flow management system that is designed to manage all plant wastewater flows and once operational will also serve the function of temporary bottom ash dewatering until the permanent bottom ash dewatering facility is operational. However, due to time constraints in procuring materials, unusually wet weather, and winter construction, and despite TVA's good faith efforts, the interim flow management project including the temporary bottom ash dewatering will not be completed and operational by April 17, 2019. Presented below is the demonstration that the APC meets the requirements of the CCR Rule alternative closure requirements (40 CFR § 257.103). This demonstration is based on the best of my knowledge, information, and belief and was prepared in accordance with generally accepted practices of engineering.

ALTERNATIVE CLOSURE REQUIREMENTS

To qualify under 40 C.F.R. § 257.103(a)(1), the owner or operator of the CCR unit must document that all of the following criteria have been met:

1. No alternative disposal capacity is available on-site or off-site.
2. The owner or operator has made, and continues to make, efforts to obtain additional capacity.
3. The owner or operator must remain in compliance with all other requirements of the subpart.
4. The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.

CRITERION 1 – NO ALTERNATIVE DISPOSAL CAPACITY

The first criterion (§ 257.103(a)(1)(i)) requires the owner or operator to certify that CCR must continue to be managed in the CCR unit due to the absence of both on-site and off-site alternative disposal capacity. In the preamble, EPA states: "For example, while it is possible to transport dry ash off-site to alternate disposal facility that simply is not feasible for wet-generated CCR. Nor can facilities immediately convert to dry handling systems. As noted previously, the law cannot compel actions that are physically impossible, and it is incumbent on EPA to develop a regulation that does not in essence establish such a standard" (EPA, 2015, Page 21423).

TVA is currently designing and constructing conversion projects (bottom ash dewatering facility and interim flow management system) for the conversion of wet sluiced bottom ash to dry. (TVA, 2017 and AECOM, 2018). However, these facilities will not be operational by April 17, 2019. Without these facilities, wet sluiced bottom ash must be managed in the APC and no potential disposal capacity exists either on-site or off-site for the wet-sluciced bottom ash.

CRITERION 2 – EFFORTS MADE TO OBTAIN ADDITIONAL CAPACITY

The second criterion (§ 257.103(a)(1)(ii)) requires that the owner or operator has made, and continues to make, efforts to obtain additional capacity. Qualification under this subsection lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner or operator must arrange to use such capacity as soon as feasible. In the preamble, EPA states: “As information in the record demonstrates, obtaining alternative capacity can sometimes require a substantial amount of time (e.g., if the facility needs to construct alternative capacity, including potentially the need to locate an alternative site or purchase additional property)” (EPA, 2015, Page 21423).

As discussed in Criterion 1, TVA has made and is making efforts to obtain additional capacity by completing the conversion projects. Completion of the conversion projects is expected to enable the wet sluiced bottom ash to be managed in a dry state and stored in the permitted, on-site lined landfill. The current schedule for these conversion projects is provided in Table 1 below:

Conversion Project	Project Goal	Project Timeline	Remaining Activities
Bottom Ash Dewatering	Permanently Dewater Bottom Ash and Treat Wastewater	Operational February 2020, Pending Construction and Commissioning	Procurement and Construction, Plant outage for final commissioning and operation
Interim Flow Management	Temporarily Dewater Bottom Ash and Treat Wastewater	Operational July 2019, Pending Construction and Commissioning	Procurement of Materials, Construction, final commissioning and operation

Table 1: Summary of Conversion Projects

Based upon the conversion projects and timelines provided, it is anticipated that either temporary or permanent bottom ash conversion systems will be in place within approximately three months of the April 17, 2019 notification date of the intent to comply with the alternative closure requirements.

CRITERION 3 – MAINTAIN COMPLIANCE WITH OTHER REQUIREMENTS

The third criterion (§ 257.103(a)(1)(iii)) requires the owner or operator “to remain in compliance with all other requirements of this subpart, including the requirement to conduct any necessary corrective action.” In the preamble EPA states: “...during this interim period the risks associated with allowing these units to continue to receive CCR are mitigated by all of the other requirements of the rule with which the facility must continue to comply, including the requirements to continue groundwater monitoring and corrective action” (EPA, 2015, Page 21423).

As required by the third criterion, TVA has complied and continues to be in compliance with all other requirements of the CCR Rule as demonstrated on the TVA Coal Combustion Residuals Website: <https://www.tva.gov/Environment/Environmental-Stewardship/Coal-Combustion-Residuals>. TVA intends to continue to advance its efforts in groundwater monitoring and corrective action in accordance with the CCR Rule, including during the time that no alternative disposal capacity is available.

CRITERION 4 – ANNUAL REPORT

The fourth criterion (§ 257.103(a)(1)(iv)) requires the owner or operator to prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity. The first annual progress report must be prepared no later than 13 months after completing the notification of intent to comply with the alternative closure requirements.

As discussed above, TVA's temporary or permanent conversion projects are anticipated to be completed within approximately three months of the April 17, 2019 notification date of intent to comply with the alternative closure requirements. Therefore, annual reporting is not anticipated to be necessary as part of compliance with the certification. However, in the unlikely event the conversion projects are not completed within 13 months of this date, the first annual progress report will be prepared, documenting the continued lack of alternative capacity and the progress towards the development of alternative disposal capacity.

CONCLUSION

In conclusion, as of the date of this demonstration, the TVA GAF APC meets the alternative closure requirements of 40 C.F.R. § 257.103(a)(1).

REFERENCES

AECOM, 2018. Flow Management Project Engineering Report, TVA Gallatin Fossil Plant, Revision 0, May 23, 2018.

EPA, 2015. Federal Register Volume 80 Number 74, Part II, 40 CFR Parts 257 and 261, Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals From Electric Utilities; Final Rule, April 17, 2015.

Tennessee Valley Authority, 2017. Bottom Ash Process Dewatering Facility Final Environmental Assessment, TVA Gallatin Fossil Plant, July 2017.

AECOM



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DATE: April 17, 2019