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FINDING OF NO SIGNIFICANT IMPACT
TENNESSEE VALLEY AUTHORITY
BULL RUN FOSSIL PLANT ASH IMPOUNDMENT CLOSURE PROJECT
ANDERSON COUNTY, TENNESSEE

In July 2016, the Tennessee Valley Authority (TVA) issued a Final Programmatic Environmental Impact Statement (PEIS) and Record of Decision that considered alternatives and related environmental impacts associated with closure of ash impoundments containing CCR at fossil fuel plants. Part I of the PEIS consisted of the Programmatic NEPA Review. In Part II of the PEIS, TVA considered the closure of the BRF Sluice Channel and Fly Ash Impoundment, which are part of the wet CCR disposal area. As originally proposed, the approximately 33-acre Fly Ash Impoundment would be Closed-in-Place which would entail dewatering, grading and covering with an approved cover system.

Subsequent to the completion of the PEIS, TVA determined that there is a long-term need for wastewater treatment at BRF. Therefore, TVA is proposing to modify the previously considered closure plan for the Fly Ash Impoundment to support the wastewater treatment system at BRF. This project would support a long-term need for wastewater treatment for BRF by providing a facility for process water and storm water treatment. TVA has prepared a Supplemental Environmental Assessment (SEA) that tiers from the PEIS, to evaluate the revised closure plan for the existing ash impoundment at BRF.

Alternatives

TVA evaluated three primary alternatives in the SEA: Alternative A – No Action; Alternative B – Fly Ash Impoundment Closure-in-Place and Repurposing of the Stilling Pond and a Portion of the Fly Ash Impoundment; and Alternative C – Fly Ash Impoundment Closure-in-Place and Repurposing of the Stilling Pond.

Per Part I of the PEIS, under the No Action Alternative TVA would not close any of the CCR Impoundments at its coal-fired plants. The No Action Alternative was fully evaluated in Part I of the PEIS to provide a baseline for potential changes to environmental resources; however, it was determined to not meet the purpose and need of achieving the TVA goal of closing CCR Impoundments. Therefore, as was discussed in Part II of the PEIS, the No Action alternative was sufficiently analyzed in Part I and not carried forward for site-specific consideration.

Under Alternative B, the Stilling Pond and a portion of the Fly Ash Impoundment would be dewatered, regraded and consolidated as necessary to meet closure grades. Material would either remain within the repurposed area, or if it is not suitable for regrading, material would be visibly removed, dried and placed in a permitted solid waste facility. A subsurface drainage layer would be installed during closure to handle any water that enters the excavations during the liner placement. Following construction of the subsurface drainage system, the liner for the proposed new Process Water Basin would be installed. The remaining portion of the Fly Ash Impoundment (the area that would not be repurposed as a Process Water Basin) would subsequently be capped and Closed-in-Place as described in Part II of the PEIS.

Under Alternative C, the Stilling Pond would be closed and repurposed as described under Alternative B, and the Fly Ash Impoundment would be capped and Closed-in-Place as described in Part II of the PEIS. Due to the reduced size of the proposed Process Water Basin compared to Alternative B, retention time and treatment capacity of the basin may be reduced. Therefore additional mitigative measures may be needed to ensure discharge waters comply with NPDES permit limits and TDEC water quality criteria. Mitigative measures may include implementation of waste water treatment technologies, and/or rerouting or recycling water.

TVA's preferred alternative is Alternative B, under which TVA would close the Fly Ash Impoundment and Stilling Pond in place and repurpose the Stilling Pond and a portion of the Fly Ash Impoundment for use as a Process Water Basin. Alternatives B and C both provide long-term benefits and meet the purpose and need of the project as both eliminate wet CRR storage, provide a facility for wastewater treatment at BRF, and would result in minimal environmental impacts. However, because the proposed Process Water Basin is smaller under Alternative C, implementation may require additional measures to adequately treat waste water. Therefore, TVA prefers Alternative B, which avoids costs associated with the provision of additional waste water treatment measures.

Impacts Assessment

TVA determined that the potential impacts of the alternatives under consideration on the following environmental resources are bounded by the PEIS, including the site-specific assessment at BRF: air quality, climate change, land use, prime farmland, vegetation, wildlife, aquatic ecology, threatened and endangered species, geology, wetlands, floodplains, natural areas, parks, public recreation, cultural and historic resources, visual resources, hazardous materials and hazardous waste, solid waste, noise, transportation, socioeconomics, environmental justice, and public health and safety. Therefore, because the proposed action is primarily associated with the closure, reuse, and reconfiguration of the Fly Ash Impoundment and Stilling Pond, and because volumes of offsite borrow are substantially reduced from that considered in the previous site-specific analysis, the only resources retained for detailed analysis in SEA were groundwater and surface water.

Under Alternative B and C CCR in the repurposed areas would be regraded and consolidated, or if it is not suitable for regrading, material would be removed, dried and placed in a permitted solid waste facility. These actions would not increase the potential for leaching of CCR constituents to the groundwater as an approved low permeability liner would be installed at the base of the repurposed areas which would prevent contact of non-CCR process water and storm water with groundwater. In addition, any CCR material left in place would be dewatered and closed with an approved cover system.

The proposed repurposed Process Water Basin is expected to maintain or improve the quality of water that would be discharged. Additionally, process water would be managed and treated in lined basin(s), thus eliminating any potential seepage. Mitigative measures would be introduced to ensure that discharge waters fall within NPDES permit limits and TDEC water quality criteria if needed. Therefore, with proper treatment implementation, these waste streams would not be expected to adversely affect surface water quality.

Implementation of Alternative B or Alternative C would have similar effects on groundwater and surface water as the original Closure-in-Place Alternative described in Part II of the PEIS, with an additional beneficial impact to groundwater resulting from the installation of a liner at the base of the proposed repurposed Process Water Basin.

Public and Intergovernmental Review

A draft of the SEA was released for public review and a 10-day comment period on June 5, 2017. TVA received comments on the Draft SEA from the Tennessee Department of Environment and Conservation (TDEC) and the Southern Environmental Law Center (SELC). TVA has considered the substantive comments it received on the Draft SEA and has responded to them in the Final SEA as appropriate.

Mitigation

Best management practices (BMPs) would be used throughout the project to avoid or reduce potential impacts on environmental resources. Mitigation measures identified in Parts I and II of the PEIS to avoid, minimize, or reduce adverse impacts to the environment are summarized below:

- Fugitive dust emissions from site preparation and construction will be controlled by wet suppression and BMPs (CAA Title V operating permit incorporates fugitive dust management conditions).
- Consistent with EO 13112, disturbed areas will be revegetated with native or non-native, non-invasive plant species to avoid the introduction or spread of invasive species.
- TVA will implement supplemental groundwater mitigative measures that could include monitoring, assessment, or corrective action programs as mandated by state and federal requirements. The CCR Rule and state requirements provide an additional layer of groundwater protection to minimize risk.

Conclusion and Findings

Based on the findings in the SEA, TVA concludes that implementing Alternative B – Fly Ash Impoundment Closure-in-Place and Repurposing of the Stilling Pond and a Portion of the Fly Ash Impoundment or Alternative C – Fly Ash Impoundment Closure-in-Place and Repurposing of the Stilling Pond, would not be a major federal action significantly affecting the environment. Accordingly, an environmental impact statement is not required.



Susan Jacks, PE
Senior Manager, Project Environmental
Planning
Environmental Compliance & Operations
Tennessee Valley Authority

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Date Signed