



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE, TENNESSEE 37243-0435

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COMMISSIONER

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July 1, 2019

Via Electronic Mail to wdwhite0@tva.gov

Attn: W. Douglas White, NEPA Specialist
Tennessee Valley Authority
400 West Summit Hill Drive, WT 11B-K
Knoxville, TN 37902

Dear Mr. White:

The Tennessee Department of Environment and Conservation (TDEC) appreciates the opportunity to provide comments on the Tennessee Valley Authority (TVA) *Draft Environmental Assessment (EA)* which evaluates the disposition of buildings and physical structures at the Allen Fossil Plant (ALF) in Shelby County, Tennessee that are no longer used for their original purpose of power generation. In an effort to reduce emissions, and in response to a regulatory agreement with various agencies and organizations, TVA is retiring units in the TVA coal-fired generating system. The ALF facility was built in the 1950s by Memphis Light, Gas and Water Division (MLGW) and later purchased by TVA in 1984. ALF's three coal-fired generating units (Units 1, 2, and 3) produced approximately 4.8 billion kilowatt-hours of electricity per year, enough to supply 340,000 homes in the Memphis area. On March 31, 2018, these units were permanently retired under an agreement that TVA entered into with the U.S. Environmental Protection Agency.¹

TVA needs to manage the disposition of the ALF site to provide necessary structures and facilities for ongoing site activities while considering capital cost, long-term operations and maintenance costs, environmental risks, safety and security at the plant site, and making the land available for future economic development. The purpose of this assessment is to determine the best alternative for such disposition. Actions considered in detail within the Draft EA include²:

¹ TVA's agreement with the EPA is a Federal Facilities Compliance Agreement which resolved a dispute over how the Clean Air Act's New Source Review program applied to maintenance and repair activities at TVA's coal-fired power plants. TVA also entered into a judicial consent decree with the States of Alabama, Kentucky, Tennessee, and North Carolina, and three environmental advocacy groups - (1) the Sierra Club, (2) the National Parks Conservation Association, and (3) Our Children's Earth Foundation. The consent decree is substantively similar to the Federal Facilities Compliance Agreement. These agreements (collectively called the "EPA Agreements") require TVA to reduce emissions across its coal-fired generating system and take other actions at its coal plants, including retiring some of its units (hence TVA's retirement of ALF Units 1 through 3).

² TVA considered Alternative A (Assess, Close, and Secure Units 1, 2, and 3 and Establish an Ongoing Operations and Maintenance Program), Alternative B (Assess, Close, and Secure Units 1, 2, and 3 with Selective Decontamination of Powerhouse and Related Equipment and Establish an Ongoing Operations and Maintenance Program) and Alternative C (Selective Demolition of Ancillary Structures and Equipment Exterior to the Main Powerhouse) in addition to Alternatives D and E, which are listed below. Alternatives A, B, and C were not carried forward.

- **Alternative D1, D2, and D3 – Full Demolition to Grade Resulting in a Brownfield Site with Stack Removal Options** – According to TVA, the objective of all of the Alternative D options is to remove all unneeded structures. All environmental issues associated with identified structures would be assessed and abated, including the decontamination of all buildings, structures, conveyers, and tunnels associated with plant operations, to remove hazardous materials. Alternative D includes the decontamination of all buildings, sumps and structures associated with plant operations to remove hazardous materials and demolishing the powerhouse and all associated structures to 3 feet below final grade resulting in a brownfield site.³

Demolition activities under Alternative D would create approximately 17,000 cubic yards of demolition debris and asbestos containing material (ACM) and 69,000 cubic yards of scrap metal that would be hauled accordance with all federal, state, and local regulations. Scrap metal could also be sold to local or regional vendors. No specific disposal site has been identified at this time and ultimate disposition site selection would be determined by the contractor.⁴ Below-grade building areas would be backfilled with suitable concrete/masonry materials or other suitable clean fill material, and the site would be restored to grade while providing proper drainage. All disturbed areas would have topsoil installed and seeded or otherwise permanently stabilized. Restoration of the site would require the addition of approximately 170,000 cubic yards of borrow material to achieve proposed finished grades and provide a suitable medium to support stabilization of the site.⁵

Buildings and structures that would be demolished are identified in Chapter 2 of the Draft EA, starting on page 13. All structures could be removed via mechanical deconstruction, explosive demolition, or a combination of methods. Scrap metal could be sold to local or regional vendors or disposed at a landfill in accordance with all federal, state, and local regulations. Suitable concrete/masonry would be processed and re-used onsite as backfill. All buried utilities would be severed and properly abandoned in place. Sanitary sewer lines and lift stations would be cleaned as deemed necessary and closed in place. Utilities would be abandoned in place. Manholes and catch basins would be demolished to 3 feet below final grade. The firewater loop, including hydrants around the switchyard and oil barge unloader would be maintained during demolition and may require cutting/capping to maintain system integrity while isolating from the domestic loop where connected. Electrical activities would include:

- Removal of station startup transformer
- De-energizing of affected electrical power distribution components at all structures to be demolished
- Demolition of equipment and associated conductors and conduit

For bulkheading of the cooling water intake and discharge tunnels, sealing or removal of the tunnels could be required. That determination would be made by the construction contractor at a future date. Therefore, sealing

³ A brownfield site is defined in the Small Business Liability Relief and Brownfields Revitalization Act as "...real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands" (Public Law 107-118).

⁴ If hauled by truck, TVA estimates that offsite transport of this material would be to an existing permitted landfill within 30 miles of ALF. Transport by truck would require the use of up to approximately 15 truckloads (30 truck trips) per day during the 12- to 18-month timeframe for the project. If debris is transported by rail or barge, the material would be loaded onto the barge or rail at the ALF site and would be transported to a landfill or recycling facility. The additional rail traffic and barge traffic would be integrated into the existing systems and once loaded would be delivered to a suitable disposal or recycling facility.

⁵ TVA estimates that between 80 to 180 truckloads (up to 360 truck trips per day) would be used to transport borrow to ALF when borrow is needed. Borrow would be obtained from one or more previously developed commercial borrow site(s) within 30 miles of ALF. No specific site has been identified at this time and ultimate site selection will be left up to the contractor.

and/or removal of the tunnels is considered as part of Alternative D for the analysis in the EA. The intake structure would remain as is with the services terminated and valves closed, or a section would be grouted or sealed by alternate mechanism to create a bulkhead. Stacks of ALF Units 1 through 3, each 400 feet tall, could be removed via three different methods. These methods comprise sub alternatives within Alternative D. The final method for demolition of the stacks and structures would be determined by the construction contractor at a future date. The sub alternatives are described below.

- **Alternative D1 - Full Demolition of Units 1, 2 and 3 and Related Structures Resulting in a Brownfield Site, Drop Removal of Stacks and Structures** – Under Alternative D1, stacks of Units 1 through 3 and other structures would be demolished by means of dropping by conventional construction methods. Such methods could include the use of controlled demolition to direct the stacks/structures to fall in a specific direction.
- **Alternative D2 – Full Demolition of Units 1, 2 and 3 and Related Structures Resulting in a Brownfield Site, Mechanical Removal of Stacks and Structures** – Under Alternative D2, stacks of Units 1 through 3 and other structures would be removed via mechanical deconstruction or other controlled methods of deconstruction.
- **Alternative D3 - Full Demolition of Units 1, 2 and 3 and Related Structures Resulting in a Brownfield Site, Hybrid Removal of Stacks and Structures** – Under Alternative D3, stacks of Units 1 through 3 and other structures would be demolished through a combination of mechanical deconstruction or other controlled methods for the upper portions of the stack and conventional controlled demolition for the lower portions.
- **Alternative E – No Action Alternative.** Under the No Action Alternative, TVA would not perform any demolition, deconstruction, decontamination, or other disposition activities at ALF. Consequently, the facility would be left in the “as-is” condition. TVA would continue to restrict access to ALF, perform periodic inspections and critical maintenance as needed, and conduct environmental monitoring and reporting as required. If left in this condition, it likely would present a higher risk than Alternatives D1 through D3 with the potential to contaminate soil and groundwater and increased runoff to surface water as systems and structures degrade. In addition, the No Action Alternative would not make the land available for future economic development of the site. As such, this alternative is not a reasonable alternative. However, being the No Action Alternative, it will be discussed in the EA and used as a basis for comparison to the other alternatives.

TDEC has reviewed the Draft EA and provides the following comments:

Cultural and Natural Resources

TDEC believes the Draft EA adequately addresses potential impacts to cultural and natural resources within the proposed project area.⁶

⁶ This is a state-level review only and cannot be substituted for a federal agency Section 106 review/response. Additionally, a court order from Chancery Court must be obtained prior to the removal of any human graves. If human remains are encountered or accidentally uncovered by earthmoving activities, all activity within the immediate area must cease. The county coroner or medical examiner, a local law enforcement agency, and the state archaeologist’s office should be notified at once (Tennessee Code Annotated 11-6-107d).

Air Resources

TDEC believes that TVA's proposed measures to mitigate environmental impacts to Tennessee's air resources are adequate. Additionally, TDEC understands that there will be potentially episodic emissions related to certain types of demolition actions (implosion or explosive deconstruction) and mechanical demolition; however, these will be of a short-term duration. Further, the emissions from demolition related equipment engines, workers vehicle engines and haul truck engines will likely be of short duration.

TDEC recommends that coordination between the local air agency and the various on-site contractors involved in demolition activities be conducted so that any potential air monitoring sites in the area likely to be impacted by episodic fugitive dust are either temporarily suspended from operation or have their data potentially evaluated for exceptional event flagging. This would be of particular interest during any proposed explosives assisted demolition. TDEC recommends the Final EA reflect this consideration.

TDEC also recommends that careful consideration be given to establishment of onsite haul truck wash stations to be used to help mitigate track out from the site of adhering soils contaminated by onsite materials destined to be disposed of. This would likely help reduce fugitive dust impacts on local haul roads leaving the site and also help to prevent any possible confusion between demolition related fugitive dust and those associated with CCR removal and disposals offsite if the two processes are allowed to occur simultaneously.

Solid Waste

In Section 1.4, TVA references both the 2016 Programmatic and Site Specific NEPA review for the Final Ash Impoundment Closure Environmental Impact Statement (EIS) for the West Ash Pond at ALF. Currently TVA is evaluating the Closure-by-Removal of all CCR material at ALF, including the West Ash Pond, as detailed in the Allen Fossil Plant Ash Impoundment Closure EIS Scoping Report (March 2019). TDEC acknowledges that the current preferred alternative for CCR material management at ALF is Closure-by-Removal and beneficial reuse and/or disposal at an offsite landfill, and that the future approach to closing ALF ash impoundments might have implications on decontamination and deconstruction, specifically as outlined in Sections 2.1. In Section 2.1, TVA lists the buried Condenser Cooling Water (CCW) tunnel that runs through/beneath the West Ash Pond as "determine the status...at a later date". Given TVA's proposed plan to excavate and beneficially reuse and/or dispose of CCR material from the West Ash Pond, TVA will need to address the CCW tunnel removal/closure in the forthcoming Allen Fossil Plant Ash Impoundment Closure EIS.

Water Resources

TDEC concurs with TVA that an Aquatic Resource Alteration Permit (ARAP) permit may be necessary based on the project locations and impacts.⁷ TDEC also concurs with TVA that a Construction Stormwater Permit will be necessary for the project and the existing Stormwater Pollution Prevention Plan for Allen will have to be amended as the process of decontamination and deconstruction progresses.⁸ The site is also within Memphis's Municipal Separate Storm Sewer System (MS4) program area.

TDEC appreciates the opportunity to comment on this Draft EA. Please note that these comments are not indicative of approval or disapproval of the proposed action or its alternatives, nor should they be interpreted as

⁷ If the determinations were not made by a certified professional, this would have to be re-done.

⁸ If you have any questions about the NPDES or ARAP application process please contact, Thomas A. Moss, P.G., Environmental Review Coordinator – Compliance and Enforcement Unit at (615) 532-0170 or tom.moss@tn.gov.

an indication regarding future permitting decisions by TDEC. Please contact me should you have any questions regarding these comments.

Sincerely,

A handwritten signature in cursive script that reads "Kendra Abkowitz".

Kendra Abkowitz, PhD

Director, Office of Policy and Sustainable Practices

Tennessee Department of Environment and Conservation

Kendra.Abkowitz@tn.gov

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