

US EPA ARCHIVE DOCUMENT



Tennessee Valley Authority, 1101 Market Street, BR 4A, Chattanooga, Tennessee 37402

Brenda Brickhouse
Vice President
Environmental Permits & Compliance

August 16, 2013

Mr. Stephen Hoffman
U.S. Environmental Protection Agency
Two Potomac yard
2733 S. Crystal Drive
5th Floor, N-5838
Arlington, Virginia 22202-2733

Dear Mr. Hoffman:

TENNESSEE VALLEY AUTHORITY (TVA) - COAL ASH SITE ASSESSMENT ROUND 11 REVISED ACTION PLANS FOR COLBERT (COF), GALLATIN (GAF), KINGSTON (KIF), PARADISE (PAF), AND WIDOWS CREEK (WCF) FOSSIL PLANTS

Attached are the above referenced Action Plans with revised schedules as documented in the letter from TVA to the United States Environmental Protection Agency (EPA) on July 31, 2013. The Action Plans previously submitted for Allen (ALF), Bull Run (BRF) Cumberland (CUF), Johnsonville (JOF), John Sevier (JSF), Shawnee (SHF), and Watts Bar (WBF) fossil plants are still accurate.

TVA has agreed to compact our completion schedules for the above referenced facilities contingent on receiving timely environmental permits and reviews [e.g. United States Army Corps of Engineer (USACE) permits, US Fish & Wildlife Service (FWS) consultation, etc.] and no excessive weather delays during construction of the proposed actions. We appreciate the opportunity to discuss our plans with EPA and request that EPA approve these proposed schedule changes.

If you have questions or need additional information, please contact Cynthia Anderson at (423) 751-4878 in Chattanooga or by email at cmanderson@tva.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Brenda E. Brickhouse".

Brenda E. Brickhouse
Vice President
Environmental Permits and Compliance

Enclosures

cc listed on page 2

Mr. Stephan Hoffman
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cc (Enclosures):

Mr. Patrick J. Flood, P.E.
Director, Division of Solid Waste Management
Tennessee Department of Environment
and Conservation
L&C Tower, 5th Floor
401 Church Street
Nashville, TN 37243

Mr. Stephan Hoffman
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CMA:LMB
Enclosures

cc (Enclosures):

Mr. Patrick J. Flood, P.E.
Director, Division of Solid Waste Management
Tennessee Department of Environment
and Conservation
L&C Tower, 5th Floor
401 Church Street
Nashville, TN 37243

cc (Enclosures):

C. M. Anderson, BR 4A-C
B. E. Brickhouse, BR 4A-C
J. C. Kammeyer, LP 5D-C
M. S. Turnbow, LP 5G-C
B. C. Portis, OMA 1A-WDC
J. A. Birdwell, WT 6A-K
D. L. Bowling, Jr., WT 7D-K
A. L. Smith, BR 4A-C
EDMS (Leslie Bailey), BR 4A-C



Stantec

Stantec Consulting Services Inc.
10509 Timberwood Circle
Louisville KY 40223-5301
Tel: (502) 212-5000
Fax: (502) 212-5055

August 8, 2013

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Mr. John C. Kammeyer, PE
Vice President
Tennessee Valley Authority
1101 Market Street, LP 5G
Chattanooga, Tennessee 37402

Re: Response to Recommendations
USEPA CCR Impoundment Assessment
Paradise Fossil Plant (PAF)
Muhlenburg County, Kentucky

Dear Mr. Kammeyer:

As requested, Stantec has reviewed the Request for Action Plan letter from USEPA dated June 13, 2013, which contains recommendations by USEPA's consultant O'Brien and Gere relative to their CCR impoundment assessment conducted at TVA's Paradise Fossil Plant.

The purpose of this letter is to address O'Brien and Gere's recommendations. The recommendations followed by Stantec's corresponding responses and TVA's proposed action plan are provided below.

Scrubber Sludge Complex

- *Design and construct an emergency overflow spillway for the Lower Stilling Pond to safely pass the spillway design flood (100% PMF)*
- *Raise low portion of Lower Stilling Pond dike as appropriate in conjunction with the design of the emergency overflow spillway*

Response/Action Plan: Since the time of O'Brien and Gere's assessment, TVA has implemented some operational changes to the Lower Stilling Pond, including removal of a weir and lowering the pool level. As a result, TVA intends to have Stantec update the H&H analysis for the Lower Stilling Pond. TVA will then make decisions on improvements based on the results of the new analysis. If improvements are judged to be necessary, an appropriate design flood will be selected and improvement options will be identified in a future study. TVA's Coal Combustion Products Management Program Master Programmatic Document identifies the spillway design flood as 100% of the PMF, unless a flood inflow condition is identified such that a failure at that flow or larger flows, up to the PMF, will no longer result in unacceptable additional consequences. It is envisioned that the selected design flood for The Lower Stilling Pond will be less than 100% PMF because the pond is

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mostly incised and an overtopping event of the adjacent haul road would not result in a loss of the impoundment, ash release, or other unacceptable consequences. An updated H&H analysis is estimated to be completed by October 2013.

Peabody Ash Pond

- *Clear trees and vegetation on lower outboard slope of east dike*
- *Armor lower outboard slope of east dike with riprap where steeper than 2.5H:1V*
- *Establish appropriate spillway design flood given the Hazard Classification of each unit*
- *Design and construct emergency overflow spillway to safely pass the appropriate spillway design flood*

Response/Action Plan: The spillway design flood for all of TVA's Significant Hazard ash disposal impoundments has been established to be the 100% PMF, unless a flood inflow condition is identified such that a failure at that flow or larger flows, up to the PMF, will no longer result in unacceptable additional consequences (in accordance with TVA's Coal Combustion Products Management Program Master Programmatic Document). Stantec's H&H Analysis for the Peabody Ash Pond demonstrates that this facility safely passes the 100-year 24-hour storm, but it does not pass the PMP. Consequently, TVA plans to establish an appropriate spillway design flood, design improvements as needed, and then construct improvements that will provide required freeboard and conveyance based on the selected design flood. This project will move into the planning phase in 2013. Engineering design is expected by June 2014, with construction likely to be completed by March 2015. This project will also include clearing of tress and placing of armor on steep slopes.

Slag Ponds 2A/2B

- *Clear trees and vegetation on lower outboard slope of east dike of Slag Pond 2B/Stilling Pond*
- *Repair erosion along edge of crest at north end of divider dike*
- *Seal cracks in open channel spillway that conveys flow from Pond 2B to the Stilling Pond*
- *Design and construct emergency overflow spillway to safely pass the spillway design flood*

Response/Action Plan: TVA has cleared the referenced trees and vegetation and has repaired the erosion. TVA plans to seal the cracks in the spillway.

The spillway design flood for all of TVA's Significant Hazard ash disposal impoundments has been established to be the 100% PMF, unless a flood inflow condition is identified such that a failure at that flow or larger flows, up to the PMF, will no longer result in unacceptable additional consequences (in accordance with TVA's Coal Combustion Products Management Program Master Programmatic Document). Stantec's H&H Analysis for the Peabody Ash Pond demonstrates that this facility safely passes the 100-year 24-hour storm, but it does not pass the PMP. Consequently, TVA plans to establish an appropriate spillway design flood, design improvements as needed, and then construct improvements that will provide required freeboard and conveyance based on the selected design flood. This project will move into the planning phase in 2013. Engineering design is expected by June 2014, with construction likely to be completed by March 2015.

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MONITORING AND FUTURE INSPECTION

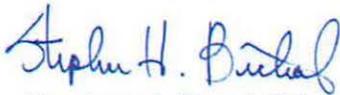
O'Brien & Gere recommends continued internal inspections by personnel trained in dam safety and periodic inspections by independent licensed dam safety engineers on at least a biennial basis. The small seep identified at the northeastern outboard toe of Pond 2B should be evaluated and monitored in accordance with TVA's Seepage Action Plan.

Response/Action Plan: TVA's Routine Handling, Operations and Maintenance (RHO&M) group will continue the ongoing inspection and maintenance program to identify, repair and monitor any noted deficiencies or seepage areas.

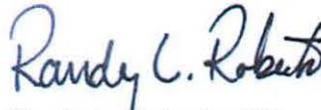
We appreciate the opportunity to provide these responses. If you have any questions or need additional information, please call.

Sincerely,

STANTEC CONSULTING SERVICES INC.



Stephen H. Bickel, PE
Senior Principal



Randy L. Roberts, PE
Principal

/cdm

Cc: Roberto L. Sanchez, PE
Michael S. Turnbow