

US EPA ARCHIVE DOCUMENT

EPA Comments

SUBJECT: Comments on “DRAFT REPORT - TVA Bull Run Fossil Power Plant”

DATE: July 11, 2012

COMMENTS:

1. On page ii, second paragraph under “INTRODUCTION, SUMMARY CONCLUSIONS AND RECOMMENDATIONS,” the report states incorrectly that “We found the supporting technical documentation adequate (Section 1.1.3). On page 1-1, Section 1.1.3 indicates the technical documentation is **inadequate**. In addition, under section 1.1.3, please add a period after the words “liquefaction potential.”
2. On page iii, first paragraph, please remove the reference to “(See Appendix C)” at the end of the paragraph, as there is no Appendix C to this report.
3. On page 2-5, Section 2.4, the last sentence in the paragraph states: “Table 2.1 summarizes the storage capacity of the each area.” Please replace “Table 2.1” with “Table 2.3.”
4. On page 7-4, the last bullet under section 7.3, ASSESSMENT OF STRUCTURAL STABILITY, please add a bullet in front of the last paragraph, thus giving this section two bullets.
5. Please add a header page in front of pages E-1 through E-5 (These pages appear after page 9-1.).



Tennessee Valley Authority, 1101 Market Street, BR4A, Chattanooga, Tennessee 37402

October 19, 2012

Mr. Stephen Hoffman
US Environmental Protection Agency (EPA) (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

TENNESSEE VALLEY AUTHORITY (TVA) – COMMENTS ON COAL ASH SITE ASSESSMENT ROUND 11 DRAFT REPORTS FOR ALLEN (ALF), BULL RUN, (BRF) COLBERT (COF), CUMBERLAND (CUF), GALLATIN (GAF), JOHN SEVIER (JSF), JOHNSONVILLE, (JOF) KINGSTON (KIF), PARADISE (PAF), SHAWNEE (SHF), WATTS BAR (WBF), AND WIDOWS CREEK (WOF) FOSSIL PLANTS

Dear Mr. Hoffman:

Tennessee Valley Authority (TVA) appreciates the opportunity to provide responses to the recommendations outlined in the Draft Coal Ash Site Assessment Round 11 Draft Reports for TVA's fossil plants. The Draft Reports were attached to EPA's September 5, 2012 email from Jana Englander to TVA's Susan Kelly. This EPA review process has provided TVA a public forum to confirm that our coal ash facilities meet current state requirements.

TVA has contracted with Stantec Consulting Services Inc., to assist in the technical review and responses to the EPA draft reports. The draft report responses are attached for your consideration in finalizing the Coal Ash Site Assessment Round 11 Reports. The following is a summary of our responses;

Allen: A seismic stability analysis and liquefaction analysis have been completed indicating acceptable performance under seismic loading. TVA recommends the Allen East Ash Pond be upgraded from Poor to Satisfactory.

Bull Run: TVA has no additional comments to EPA's analysis.

Colbert: TVA has no additional comments to EPA's analysis.

Cumberland: The operating pool level for the Ash Pond has been lowered 6.2 feet and the seepage analysis has been revised. Piping factors of safety are now satisfactory. TVA recommends the final rating for the Ash Pond be upgraded from Fair to Satisfactory.

Mr. Stephen Hoffman
Page 2
October 19, 2012

A liquefaction potential assessment was performed for the Gypsum Disposal Area and showed the saturated ash materials are anticipated to undergo liquefaction for the 2,500-year earthquake. Therefore, a higher level of slope stability analysis was completed demonstrating that the factor of safety is satisfactory. TVA recommends the final rating for the Gypsum Disposal Area be upgraded from Poor to Satisfactory.

Additional seismic analysis and field investigation is underway for the Dry Fly Ash Stack. The results are indicating the possibility of a favorable response. However, the analysis is not complete. We anticipate its completion during EPA's review of these comments.

Gallatin: A seismic stability analysis for Ponds A and E has been completed with acceptable results. TVA recommends the final rating be upgraded from Fair to Satisfactory.

An additional stability and seepage analysis for the saddle dikes on the stilling ponds has been completed and a project to increase the hydrologic/hydraulic capacity of the ponds is underway. Based on the analysis and improvement plans underway, TVA recommends the Gallatin Stilling Ponds rating be upgraded from Poor to Fair and from Fair to Satisfactory once the project is completed.

John Sevier: The static and seismic slope stability analysis were reviewed and deemed to be appropriate for the soil materials present.

Johnsonville: A quantitative liquefaction analysis and a post-earthquake static slope stability analysis were performed. Results showed the slope to remain stable. As a result, TVA recommends that final rating for Ash Disposal Area 2 be upgraded from Fair to Satisfactory.

Kingston: TVA has no additional comments to EPA's analysis.

Paradise: A liquefaction analysis was performed and the hydrologic/hydraulic capacity was evaluated. The liquefaction analysis indicated that the materials would remain stable and not liquefy during a 2,500 year event. The H&H analysis confirmed that the ponds safely pass the 100-year 24-hour storm. However, they do not pass the Probable Maximum Flood. TVA has plans to design and construct features to correct this issue at the ponds. TVA recommends that the facilities at Paradise be upgraded from Fair to Satisfactory once the H&H issues have been addressed.

Shawnee: A liquefaction analysis and post-earthquake static stability analysis were performed with acceptable results. TVA recommends that the rating for Ash Pond No. 2 be upgraded from Poor to Satisfactory.

Watts Bar: A hydrologic/hydraulic analysis was performed for the design storm and the new spillway system currently under design and in construction. Based on the satisfactory outcome of the analysis; TVA recommends the final rating be upgraded from Fair to Satisfactory.

Widows Creek: TVA has no additional comments to EPA's analysis.

The following is a summary of the draft facility ratings and TVA's proposed final ratings.

EPA Draft Report Results				
Plant	Facility	Draft Rating	Driver for Rating	Stantec Proposed Final Rating
ALF	East Pond	Poor	Seismic	Sat
BRF	FA Pond	Sat		Sat
	BA Pond	Fair	Liquefaction	Fair
	Gyp Pond	Fair	Liquefaction	Fair
COF	Dry Stack	Sat		Sat
	BA Pond	Fair	Liquefaction	Fair
CUF	Ash Pond	Fair	Piping	Sat
	Dry Stack	Poor	Seismic	Poor
	Gyp	Poor	Seismic	Sat
GAF	Ash Ponds	Fair	Liquefaction	Sat
	Stilling Ponds	Poor	H&H and static	Fair
JSF	Dry Stack	Sat		Sat
	Ash pond	Sat		Sat
JOF	Island	Fair	Liquefaction	Sat
KIF	Ash/stilling	Fair	Liquefaction	Fair
	GDA	Sat		Sat
PAF	Scrubber sludge	Fair	H&H - overtopping	Fair
	Ash Pond	Fair	H&H - overtopping	Fair
	Slag Ponds	Fair	H&H - overtopping	Fair
SHF	Ash Pond	Poor	Seismic	Sat
WBF	Pond	Fair	H&H	Sat
WCF	Gyp stack	Sat		Sat
	Ash Pond	Fair	Liquefaction	Fair

Mr. Stephen Hoffman
Page 4
October 19, 2012

TVA takes its environmental responsibilities very seriously and appreciates EPA's efforts to verify the quality of our impoundments. We would like to arrange a conference call once your staff has received this letter and briefly reviewed the attached reports so we can answer any immediate questions or concerns. Please contact Susan Kelly at (423)-751-2058 or sjkelly0@tva.gov to arrange this conference call.

Sincerely,



for
Brenda E. Brickhouse
Vice President
Compliance Interface and Permits

Enclosures

Mr. Stephen Hoffman
Page 5
October 19, 2012

SJK:LMB

Enclosures

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