

US EPA ARCHIVE DOCUMENT

Comments on Santee Cooper Grainger Generating Station Draft Report:

EPA:

None

State:

None

Company: see letter dated November 30, 2010

November 30, 2010

Mr. Stephen Hoffman  
US Environmental Protection Agency  
Two Potomac Yard  
2733 South Crystal Drive  
5th Floor, N-5237  
Arlington, VA 22202-2733

Subject: Draft Dike Assessment Report Comments  
Grainger Generating Station – Conway, SC

Dear Mr. Hoffman:

South Carolina Public Service Authority (Santee Cooper) received and reviewed the draft dike assessment report for the Grainger Generating Station which resulted from the site assessment conducted by your contractor, GEI Consultants, Inc., on June 24, 2010. Attached is a summary of recommended corrections and comments.

The impoundments are under the regulatory authority of the South Carolina Department of Health and Environmental Control. Santee Cooper has an excellent track record with regard to the safety of our coal combustion residual storage impoundments and is fully committed to maintaining this record.

Santee Cooper makes no confidentiality claims with respect to material contained in the draft report or with respect to this correspondence. Please contact me at 843-761-8000 if you have any questions.

Sincerely,



Jay Hudson, PE  
Manager  
Environmental Management

JAH:SWJ:DBB:dks

Attachment

**Santee Cooper Grainger Generating Station  
Comments on Draft Dam Assessment Report  
By  
GEI Consultants, Inc.  
Dated July 2010**

Santee Cooper has reviewed the draft assessment report prepared by GEI Consultants, Inc., for the impoundments containing coal combustion residuals at the Grainger Generating Station. Santee Cooper appreciates the consultant's thoroughness and we concur with the conclusion that the condition of the CCR impoundments at the Grainger Generating Station is satisfactory and have a low or less than low hazard potential. In addition, "no visual signs of instability, erosion, movement or seepage were observed." The following comments are provided:

**Draft Report Corrections:**

1. Page 3, Section 2.2, second paragraph –  
*Revise to clarify actual operation of the Ash Ponds.*  
All wet sluiced CCR material is sent to Ash Pond #2 which has a permitted NPDES outfall. After CCR materials settle the solids are excavated from Ash Pond #2 and placed in Ash Pond #1 for disposal. Stormwater and any excess water from the CCR placed in Ash Pond #1 is continuously collected and pumped into Ash Pond #2.
2. Page 4, Section 2.4; Page 5, Section 2.7; Page 6, Section 3.0; Page 7, Section 4.2, Page 14, Section 8.0 –  
*Revise all references to Ash Pond #1 serving as a landfill in order to clarify actual operation of the Ash Ponds.*  
Although, Ash Pond #1 contains well consolidated CCR and is continuously dewatered because it does not have an NPDES outfall, Santee Cooper does not consider this impoundment to be a landfill. Future operation of this impoundment is being assessed.
3. Page 5, Section 2.7 –  
*Revise to clarify actual operation of the Cooling Pond.*  
Plant process water, including ash transport water, coal pile runoff, and low volume waste, is discharged to Ash Pond #2. Only once through cooling water is discharged to the Cooling Pond.
4. Page 9, Section 5.2.1 –  
*Revise to clarify actual operation of the Ash Ponds.*  
Runoff from both Ash Pond #1 and the coal pile adjacent to the plant are *pumped* to Ash Pond #2.
5. Page 13, Section 7.3 –  
*Revise to clarify.*  
Santee Cooper does record the elevation of water in the groundwater quality wells and will use this information to assess slope stability.
6. Page 14, Section 8.2 –

The NPDES outfall from Ash Pond #1 was eliminated in 1977 after Ash Pond #2 was constructed. Since that time, Ash Pond #1 is continuously dewatered by a network of drainage ditches and pumping. It contains well consolidated CCR.

7. Inspection checklists, Page 2 for each impoundment –  
The impoundments are located in Horry County.
8. All occurrences of the term Coal Combustion Waste and CCW should be changed to Coal Combustion Residual and CCR.

## **Comments to Consultant's Recommendations:**

### **1. Corrective Measures and Analyses for the Structures**

Page 23, Section 12.1 –

“A preliminary analysis of seismic slope stability and liquefaction potential of the Ash Pond #2 dike should be completed to determine whether more detailed seismic studies are necessary.”

#### Comment -

Coal Combustion Residual (CCR) impoundment dikes at all generating stations owned and operated by Santee Cooper are not currently nor have they ever been required by Federal or State standards to analyze seismic stability and liquefaction potential; furthermore, these analyses were not required as part of the original permit needed to construct the CCR impoundments at Grainger Generating Station. Given the low height (less than 13') and generally low consequences of failure, the generally good condition of the basins and embankments, CCR consolidation, exceptional performance record, and satisfactory condition rating for Ash Pond #1 and Ash Pond #2; a preliminary seismic stability and liquefaction potential analyses are not warranted at this time.

### **2. Corrective Measures Required for Instrumentation and Monitoring Procedures**

Page 23, Section 12.2 –

“No corrective measures are required. We suggest that water level readings be recorded in the groundwater quality wells at the toe of Ash Pond #2 in order to monitor any changes in the piezometric surface, and for potential use in future stability studies.”

#### Comment -

Readings from the groundwater quality wells are recorded and reported to SCDHEC. Santee Cooper is always looking for ways improve our dam safety program and agrees that these readings will be reviewed for potential changes in the piezometric surface of the impoundments.

### **3. Corrective Measures Required for Maintenance and Surveillance Procedures**

Page 23, Section 12.3 – “None.”

#### No Comment

### **4. Corrective Measures Required for the Methods of Operation of the Project Works**

Page 23, Section 12.4 – “None.”

#### No Comment

### **5. Summary**

Page 23, Section 12.5 - No Comment

## **Comments to Consultant's Impoundment NID Hazard Potential Ratings:**

1. Ash Pond #1 – This impoundment is classified as very small in height with small storage and contains nearly all well consolidated CCR. Santee Cooper concurs with the consultant's less than low hazard potential rating.
2. Ash Pond #2 – This impoundment is classified as very small in height with small storage. Santee Cooper concurs with the consultant's low hazard potential rating.

## **Comments to Consultant's Impoundment Condition Ratings:**

The criteria used by GEI Consultants, Inc. to rate the CCW impoundments is found on page 24 of their draft report. Although the parameters are broad, GEI Consultants applied the standards appropriately. Santee Cooper agrees with the satisfactory condition ratings for Ash Pond #1 and Ash Pond #2.