

US EPA ARCHIVE DOCUMENT

May 18, 2011

**VIA FEDERAL EXPRESS**

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

Subject: Final Impoundment Assessment Report  
Plan and Schedule  
Jefferies Generating Station – Moncks Corner, SC

Dear Mr. Hoffman:

South Carolina Public Service Authority (Santee Cooper) received and reviewed the final impoundment assessment report for the Jefferies Generating Station which resulted from the site assessment conducted by EPA's contractor, Dewberry & Davis, LLC. on June 29, 2010.

EPA's engineering contractor has rated the Jefferies Generating Station impoundments in accordance with the National Inventory of Dams rating criteria. Ash Pond A is rated as having a "Significant" hazard potential and Ash Pond B is rated as having a "Low" hazard potential. Santee Cooper agrees with the low hazard potential rating for Ash pond B. However, the significant hazard potential rating for Ash Pond A is over stated. It is noted, the hazard potential rating is not an indication of the structural integrity of the impoundment, but of the hazard potential if the impoundment were to fail. A significant hazard potential is used where failure results in no probable loss of human life but can cause significant economic loss, environmental damage, or disruption of lifeline facilities. Because there are no structures between the impoundments and the tailrace canal, the impoundments do not pose a threat to human life. While some environmental damage in the tailrace canal is possible, due to the small size of the impoundments the amount of water and waste that could be discharged is small. The small size of the impoundments also makes the potential disruption of navigation in the Tailrace Canal unlikely, even in the event of a breach through the spoil bank.

EPA's consultant has classified the Jefferies Generating Station impoundments in accordance with EPA criteria for continued safe and reliable operation. Ash Pond A and Ash Pond B are classified as FAIR for continued safe and reliable operation. The consultant acknowledged this rating is influenced by the lack of rudimentary engineering data and anticipates the rating of both ponds would be considered SATISFACTORY for

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continued safe and reliable operation upon completion of a review and documentation of static stability and documentation of hydrologic safety.

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. The consultant acknowledges this commitment however, made several recommendations to improve inspections and provide further assurance of static stability and hydrologic safety. Santee Cooper responds to each of the recommendations as follows:

#### **1.2.1 & 1.2.3 Structural Stability and Supporting Technical Documentation –**

##### Recommendation –

*There are no critical needs; however, to eliminate concern about the lack of documentation, Santee Cooper should perform at least simplified, but conservative, documented analyses to verify static stability of the perimeter dike impounding Ash Pond A and Ash Pond B.*

##### Response -

Santee Cooper will perform simplified yet conservative static stability analyses of the perimeter dike impounding Ash Pond A and Ash Pond B. Santee Cooper will provide the necessary supporting technical documentation by March 29, 2012.

#### **1.2.2 & 1.2.3 Hydrologic/Hydraulic Stability and Supporting Technical Documentation –**

##### Recommendation –

*Santee Cooper should review and document how the apparent off-site drainage toward Ash Pond A is handled and perform hydrologic/hydraulic analysis as may be required to document that the basins can safely store and pass the appropriate design flood.*

##### Response -

Santee Cooper will review and document how the off-site drainage toward Ash Pond A is handled and perform hydrologic/hydraulic analyses as may be required to document the basins can safely store and/or pass the appropriate design flood. Santee Cooper will provide the necessary supporting technical documentation by March 29, 2012.

#### **1.2.7 Surveillance and Monitoring Program –**

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Recommendation –

*Santee Cooper should perform a more detailed inspection along the spoil bank at least once per quarter. All inspections should be documented by a written report or checklist.*

*Santee Cooper should perform an internal inspection of the main outlet structure at Ash Pond B at least once every 5 years and document with a written report.*

Response -

Santee Cooper will perform quarterly visual inspections by boat and document with a checklist as part of the BMP plan. Santee Cooper will update the Plan by July 1, 2011.

Santee Cooper's BMP Plan requires an inspection of the impoundments be conducted by a Qualified Dam Safety Engineer on an annual basis or every 5 years, depending on the impoundment. A schedule is included in the plan. Santee Cooper will update the Plan to include an internal inspection and written report for the principal outlet structures at least once every five years. Santee Cooper will update the Plan by July 1, 2011.

**1.2.8 Continued Safe and Reliable Operation –**

Recommendation –

*In addition to the recommendations to document static stability and perform a hydrologic/hydraulic analysis, Santee Cooper should periodically review downstream changes that may alter the hazard potential classification or assessment of the consequences of failure of the ash impoundments.*

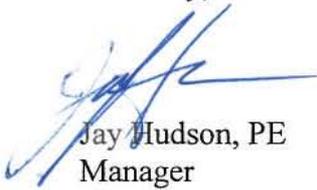
Response -

Santee Cooper's BMP Plan requires an inspection of the impoundments be conducted by a Qualified Dam Safety Engineer on an annual basis or every 5 years, depending on the impoundment. A schedule is included in the plan. Santee Cooper will update the Plan to include a review by a Qualified Dam Safety Engineer of downstream changes that may alter the hazard potential classification or assessment of the consequences of potential failure of the impoundments. Santee Cooper will update the Plan by July 31, 2011.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Jay Hudson", is written over the typed name.

Jay Hudson, PE  
Manager  
Environmental Management

JAH:SWJ:DBB:dss

[Attachment](#)