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March 25, 2009

Mr. Richard Kinch US Environmental Protection Agency (5306P) 1200 Pennsylvania Avenue, NW Washington, DC 20460

RE: South Carolina Public Service Authority (Santee Cooper) Response to EPA's Requests for Information Under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.9604(e)

Dear Mr. Kinch:

Enclosed are the South Carolina Public Service Authority's ("Santee Cooper") responses to the United States Environmental Protection Agency's ("EPA") Requests for Information ("Requests") under Section 104(3) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.9604(e). Responses and Certifications are identified as Exhibit A and are enclosed for the following Requests:

Grainger Generating Station - Request dated March 9, 2009, received March 12, 2009
Jefferies Generating Station - Request dated March 9, 2009
Winyah Generating Station - Request dated March 9, 2009 and received March 16, 2009
Cross Generating Station - Request dated March 9, 2009 and received March 19, 2009
General Request to CEO - Request dated March 9, 2009 and received March 12, 2009

We have not yet received Requests for Jefferies Generating Station but are moving forward with responding to questions asked in the other Requests for these facilities with the expectation that the Requests not yet received will be identical to those already received. Copies of the Requests we have received are attached hereto as Exhibit B for your reference.

Please note that Responses to the General Request to the CEO are included in the four station responses and as such there is not a separate document responding to this Request. However, the cover letter did inquire as to any additional Santee Cooper facilities which might have units that

Mr. Richard Kinch March 25, 2009 Page 2

would be covered by the Requests but which did not receive a Request. There are no additional facilities which have units as described in your letter.<sup>1</sup>

Santee Cooper has an excellent track record with regard to the safety of our byproduct storage impoundments and is fully committed to maintaining this record. Additionally, Santee Cooper has had tremendous success in optimizing the recycling and reuse of byproducts in order to minimize the use of the surface impoundments. At both our Grainger and Winyah Generating Stations, these impoundments which were originally designed for both fly ash and bottom ash storage are currently receiving only minimal fly ash due to successful recycling. The fly ash is transported to a Carbon Burnout facility at our Winyah Generating Station where it is processed for use by the concrete industry. All of Santee Cooper's FGD systems are a forced oxidation process, which makes gypsum, which is a beneficial byproduct. Gypsum is recycled into wallboard at a facility located adjacent to the Winyah Generating Station, and also sold for agriculture and other uses.

I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Sincerely,

R. M. Singletary

Senior Vice President, Corporate Services

Santee Cooper

RMM: JW: SWJ:dks

cc: Bob King, attn: David Wilson

SCDHEC

2600 Bull Street Columbia, SC 29201

<sup>&</sup>lt;sup>1</sup> Please note that based upon our interpretation of these Requests, it does not appear that EPA is seeking information regarding other types of surface impoundments which may be located at our facilities such as cooling ponds or industrial stormwater retention ponds. Therefore we have not included information regarding these impoundments.

# Exhibit B

# Exhibit A

# Response to United States Environmental Protection Agency Request for Information dated March 9, 2009

# **Cross Generating Station**

1. Relative to the National Inventory of Dams (NID) criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit(s) does not have a rating, please note that fact.

Santee Cooper's Cross Generating Station impoundments (Units) have an "undetermined" rating. Santee Cooper's units are not regulated by a federal or state agency. These units are less than 18 feet high. Santee Cooper recently created an internal task force to assess all of these types of units which it owns. This task force is made up of professional engineers representing dam safety, environmental, operations, and maintenance functions within the company. The efforts of this task force will include establishing a potential hazard rating for each impoundment using nationally recognized criteria.

#### 2. What year was each management unit commissioned and expanded?

Cross Generating Station	Commissioned	Expanded
Bottom Ash Pond 1 (original)	1983	n/a
Bottom Ash Pond 2	1995	n/a
Gypsum Pond	1983	n/a

3. What materials are temporarily or permanently contained in the Unit? Use the following categories to respond to this question: (1) Fly ash; (2) Bottom ash; (3) Boiler slag; (4) Flue gas emission control residuals; (5) Other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).?

Cross Generating Station	Materials in Unit	
Bottom Ash Pond 1 (original)	2,3	
Bottom Ash Pond 2	2,3	
Gypsum Pond	4	

4. Was the management unit(s) designed by a Professional Engineer: Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Cross Generating	Design	Construction	Inspection &
Station			Monitoring
Bottom Ash Pond 1	Burns & Roe	Burns & Roe, Ruscon	Santee
(original)	Lockwood Greene	Construction subcontractor	Cooper
Bottom Ash Pond 2	Gilbert Commonwealth	Gilbert Commonwealth	Santee

		Higgerson-Buchanon	Cooper
Gypsum Pond	Burns & Roe	Burns & Roe, Ruscon	Santee
	Lockwood Greene	Construction subcontractor	Cooper

All of the Units were designed and constructed by nationally recognized professional engineering and construction firms which included the oversight and direction by Professional Engineers during all aspects of design and construction. Additionally, Santee Cooper served as our own General Contractor for construction of these Units, which provided an additional level of review and oversight by Professional Engineers.

Generating Station personnel perform quarterly inspections of the Units under the direction of a Station Supervisor. The same small group of people performs the inspections to ensure any changes or anomalies will be easily recognized. The inspectors are knowledgeable about the operation, maintenance, and general condition of the impoundments. Written inspection reports are prepared and reviewed and signed by the Station Manager. A copy of these reports is submitted to engineers in the corporate office for additional review.

If any structural or safety issues are noted during the inspections or are later noted in the review cycle of the impoundment inspection reports, they are referred to Santee Cooper's Construction Services Department. Santee Cooper owns and operates a federally licensed hydroelectric facility with over 40 miles of dams & dikes regulated by the Federal Energy Regulatory Commission (FERC). Santee Cooper's Construction Services Department has developed and oversees a comprehensive and well established dam safety program with a staff of trained dam safety engineers, under the supervision of a Professional Engineer. The staff is on-call 24/7 to address any questions or concerns regarding the structural integrity of any of Santee Cooper's impoundments. This department has the necessary heavy earth moving equipment and has a staff of experienced equipment operators and can readily respond to an emergency.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

Because of the low head, age, good condition, ongoing maintenance, and original design and construction of each impoundment, a formal evaluation of the structural integrity has not been performed on these Units. The design criteria has always been very stringent and considered geotechnical conditions of the foundation, seismic conditions, groundwater levels, and flood levels. Additionally none of the dikes are over 18 feet in height. Also, these facilities are located in South Carolina's coastal plain where surrounding terrain slopes are typically less than 1-2% further minimizing any potential impacts.

In addition, a task force was established in early 2009 to further evaluate the need and extent for any future structural integrity assessments for each Unit based on a review of the hazard rating and other data. This assessment will be completed in 2010.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.

These Units are not regulated by State or Federal agencies thus no formal structural inspections have been performed by any agencies, except Santee Cooper. Santee Cooper performs our own inspections and maintains the integrity and safety of these structures. However, the South Carolina Department of Health and Environmental Control ("SCDHEC") performs periodic NPDES inspections and because these Units are permitted industrial treatment facilities for station wastewater, the SCDHEC inspection incorporates a review of the operation of the bottom ash ponds and the permitted discharge.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

No safety issues have been identified for any of the Cross impoundments.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) was taken Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

Cross Generating	Surface	Total	Volume of	Maximum	Date of Last
Station	Area	Storage	Materials	Height	Volume
	(acres)	Capacity	Currently Stored	(feet)	Measurement
		(acre-feet)	(acre-feet)		
Bottom Ash Pond 1	12.8	230	23	18	Mar. 18, 2009
(original)					
Bottom Ash Pond 2	79	1158	783	14	Jan. 27, 2009
Gypsum Pond	1	6	Varies <sup>1</sup>	6	Weekly 1.

<sup>&</sup>lt;sup>1</sup> The gypsum pond serves as an intermediary staging area and settling pond for the FGD system's wash water and gypsum. Continuous maintenance occurs to remove the gypsum material and transport it by truck to the permitted industrial solid waste landfill on site.

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or Federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater)

There have been no spills or unpermitted releases from these Units within the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

Santee Cooper (South Carolina Public Service Authority) is the owner and operator of all listed impoundments.

### **CERTIFICATION**

I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations

Signature:

Phil Pierce, P.E. Vice President Generation

# Response to United States Environmental Protection Agency Request for Information dated March 9, 2009 Grainger Generating Station

1. Relative to the National Inventory of Dams (NID) criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit(s) does not have a rating, please note that fact.

Santee Cooper's Grainger Generating Station impoundments (Units) have an "undetermined" rating. Santee Cooper's units are not regulated by a federal or state agency. These units are less than 13 feet high. Santee Cooper recently created an internal task force to assess all of these types of units which it owns. This task force is made up of professional engineers representing dam safety, environmental, operations, and maintenance functions within the company. The efforts of this task force will include establishing a potential hazard rating for each impoundment using nationally recognized criteria.

#### 2. What year was each management unit commissioned and expanded?

Grainger Generating Station	Commissioned	Expanded
Ash Pond #1	1966	1967
Ash Pond #2	1977	1990

3. What materials are temporarily or permanently contained in the Unit? Use the following categories to respond to this question: (1) Fly ash; (2) Bottom ash; (3) Boiler slag; (4) Flue gas emission control residuals; (5) Other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).?

Grainger Generating Station	Materials in Unit
Ash Pond #1	1, 2, 3
Ash Pond #2	1, 2, 3

4. Was the management unit(s) designed by a Professional Engineer: Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Grainger	Design	Construction	Inspection &
Generating Station			Monitoring
Ash Pond #1	Burns & Roe	Central Electric Power	Santee Cooper
	Lockwood Greene	Coop oversight	_
Ash Pond #2	Lockwood Greene	Lockwood Greene	Santee Cooper

Both Units were designed by nationally recognized professional engineering and construction firms which included the oversight and direction of Professional Engineers

during all aspects of design. Santee Cooper served as our own General Contractor for design and construction of the 1990 expansion of the Unit #2 Ash Pond which included the oversight and direction of Professional Engineers during all aspects of design and construction

Generating Station personnel perform quarterly inspections of the Units under the direction of a Station Supervisor. The same small group of people performs the inspections to ensure any changes or anomalies will be easily recognized. The inspectors are knowledgeable about the operation, maintenance, and general condition of the impoundments. Written inspection reports are prepared and reviewed by the Station Manager if any problems are detected. A copy of these reports is submitted to engineers in the corporate office for additional review.

If any structural or safety issues are noted during the inspections or are later noted in the review cycle of the impoundment inspection reports, they are referred to Santee Cooper's Construction Services Department. Santee Cooper owns and operates a federally licensed hydroelectric facility with over 40 miles of dams & dikes regulated by the Federal Energy Regulatory Commission (FERC). Santee Cooper's Construction Services Department has developed and oversees a comprehensive and well established dam safety program with a staff of trained dam safety engineers, under the supervision of a Professional Engineer. The staff is on-call 24/7 to address any questions or concerns regarding the structural integrity of any of Santee Cooper's impoundments. This department has the necessary heavy earth moving equipment and has a staff of experienced equipment operators and can readily respond to an emergency.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

Because of the low head, good condition, ongoing maintenance, and original design and construction of each impoundment, a formal evaluation of the structural integrity has not been performed with the exception of Ash Pond #2. In 1990, Santee Cooper's Construction Services Department performed a stability analysis of the dike to evaluate the impact of raising the dike 2 to 3 feet. The analysis determined that adequate factors of safety would be maintained upon raising the dike 3 feet.

The design criteria has always been very stringent and considered geotechnical conditions of the foundation, seismic conditions, groundwater levels, and flood levels. Additionally none of the dikes are over 13 feet in height. Also, these facilities are located in South Carolina's coastal plain where surrounding terrain slopes are typically less than 1-2% further minimizing any potential impacts.

In addition, a task force was established in early 2009 to further evaluate the need and extent for any future structural integrity testing for each Unit based on a review of the hazard rating and other data. This assessment will be completed in 2010.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.

These Units are not regulated by State or Federal agencies thus no formal structural inspections have been performed by any agencies, except Santee Cooper. Santee Cooper performs our own inspections and maintains the integrity and safety of these structures. However, the South Carolina Department of Health and Environmental Control ("SCDHEC") performs periodic NPDES inspections and because these Units are permitted industrial treatment facilities for station wastewater, the SCDHEC inspection incorporates a review of the operation of the bottom ash ponds and the permitted discharge.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

No safety issues have been identified for any of the Grainger impoundments.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) was taken Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

Grainger Generating Station	Surface Area (acres)	Total Storage Capacity (acre-feet)	Volume of Materials Currently Stored (acre-feet)	Maximum Height (feet)	Date of Last Volume Measurement
Ash Pond #1	42.5	298	268	7	Mar. 18, 2009
Ash Pond #2	39	429	170	13	Feb. 22, 2006

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or Federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater)

There have been no spills or unpermitted releases from these Units within the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

Santee Cooper is the legal owner and operator of the facility. Prior to the end of 2008, it leased the facility pursuant to a long term lease with Central Electric Cooperative, Inc. and has been the sole operator of the facility. At the end of 2008 title vested in Santee Cooper, although Central has not yet delivered the deed to the property.

#### **CERTIFICATION**

I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations

Signature:

Phil Rierce, P

Vice President Generation

# Response to United States Environmental Protection Agency Request for Information dated March 9, 2009 Jefferies Generating Station

1. Relative to the National Inventory of Dams (NID) criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit(s) does not have a rating, please note that fact.

Santee Cooper's Jefferies Generating Station impoundments (Units) have an "undetermined" rating. Santee Cooper's units are not regulated by a federal or state agency. These units are less than 20 feet high. Santee Cooper recently created an internal task force to assess all of these types of units which it owns. This task force is made up of professional engineers representing dam safety, environmental, operations, and maintenance functions within the company. The efforts of this task force will include establishing a potential hazard rating for each impoundment using nationally recognized criteria.

### 2. What year was each management unit commissioned and expanded?

Jefferies Generating Station	Commissioned	Expanded
Ash Pond A	1970	n/a
Ash Pond B	1970	n/a

3. What materials are temporarily or permanently contained in the Unit? Use the following categories to respond to this question: (1) Fly ash; (2) Bottom ash; (3) Boiler slag; (4) Flue gas emission control residuals; (5) Other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).?

Jefferies Generating Station	Materials in Unit
Ash Pond A	1, 2, 3
Ash Pond B	1, 2, 3

4. Was the management unit(s) designed by a Professional Engineer: Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Jefferies Generating	Design	Construction	Inspection &
Station			Monitoring
Ash Pond A	Burns & Roe	Burns & Roe	Santee Cooper
	Lockwood Greene	Ruscon Construction	
Ash Pond B	Burns & Roe	Burns & Roe	Santee Cooper
	Lockwood Greene	Ruscon Construction	

The engineering firm for both Units was Burns & Roe. Under Burns and Roe, the civil design firm was Lockwood Greene and the construction was performed by Ruscon Construction Company. Burns & Roe and Lockwood Greene are nationally recognized professional engineering and construction firms thus the full scope of work was under the oversight and direction of Professional Engineers during all aspects of design and construction.

Generating Station personnel perform quarterly inspections of the Units under the direction of a Station Supervisor. The same small group of people performs the inspections to ensure any changes or anomalies will be easily recognized. The inspectors are knowledgeable about the operation, maintenance, and general condition of the impoundments. Written inspection reports are prepared and reviewed by the Station Manager if any problems are detected. A copy of these reports is submitted to engineers in the corporate office for additional review.

If any structural or safety issues are noted during the inspections or are later noted in the review cycle of the impoundment inspection reports, they are referred to Santee Cooper's Construction Services Department. Santee Cooper owns and operates a federally licensed hydroelectric facility with over 40 miles of dams & dikes regulated by the Federal Energy Regulatory Commission (FERC). Santee Cooper's Construction Services Department has developed and oversees a comprehensive and well established dam safety program with a staff of trained dam safety engineers, under the supervision of a Professional Engineer. The staff is on-call 24/7 to address any questions or concerns regarding the structural integrity of any of Santee Cooper's impoundments. This department has the necessary heavy earth moving equipment and has a staff of experienced equipment operators and can readily respond to an emergency.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

Because of the low head, good condition, ongoing maintenance, and design and construction of each impoundment, a formal evaluation of the structural integrity has not been performed on these Units. Additionally none of the dikes are over 20 feet in height. Also, these facilities are located in South Carolina's coastal plain where surrounding terrain slopes are typically less than 1-2% further minimizing any potential impacts.

In addition, a task force was established in early 2009 to further evaluate the need and extent for any future structural integrity testing for each Unit based on a review of the hazard rating and other data. This assessment will be completed in 2010.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is

planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.

These Units are not regulated by State or Federal agencies thus no formal structural inspections have been performed by any agencies, except Santee Cooper. Santee Cooper performs our own inspections and maintains the integrity and safety of these structures. However, the South Carolina Department of Health and Environmental Control ("SCDHEC") performs periodic NPDES inspections and because these Units are permitted industrial treatment facilities for station wastewater, the SCDHEC inspection incorporates a review of the operation of the bottom ash ponds and the permitted discharge.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or being taken to deal with the issue or issues. Please provide any documentation that you have for these actions.

No safety issues have been identified for any of the Jefferies impoundments.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) was taken Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

Jefferies Generating Station	Surface Area (acres)	Total Storage Capacity (acre-feet)	Volume of Materials Currently Stored (acre-feet)	Maximum Height (feet)	Date of Last Volume Measurement
Ash Pond A	127	982	786	20	Feb. 4, 2004
Ash Pond B	42	245	25	10	Feb. 4, 2004

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or Federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater)

There have been no spills or unpermitted releases from these Units within the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.

Santee Cooper (South Carolina Public Service Authority) is the owner and operator of all listed impoundments.

## **CERTIFICATION**

I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations

Signature:

Vice President Generation

# Response to United States Environmental Protection Agency Request for Information dated March 9, 2009

# Winyah Generating Station

1. Relative to the National Inventory of Dams (NID) criteria for High, Significant, Low, or Less-than-Low, please provide the potential hazard rating for each management unit and indicate who established the rating, what the basis of the rating is, and what federal or state agency regulates the unit(s). If the unit(s) does not have a rating, please note that fact.

Santee Cooper's Winyah Generating Station impoundments (Units) have an "undetermined" rating. Santee Cooper's units are not regulated by a federal or state agency. These units are less than 32' high. Santee Cooper recently created an internal task force to assess all of these types of units which it owns. This task force is made up of professional engineers representing dam safety, environmental, operations, and maintenance functions within the company. The efforts of this task force will include establishing a potential hazard rating for each impoundment using nationally recognized criteria.

## 2. What year was each management unit commissioned and expanded?

Winyah Generating Station	Commissioned	Expanded	
Ash Pond A	1975	n/a	
Ash Pond B	1975	1997	
South Ash Pond	1980	n/a	
West Ash Pond	1980	n/a	
Unit 2 Slurry Pond	1977	n/a	
Unit 3 & 4 Slurry Pond	1980	n/a	

3. What materials are temporarily or permanently contained in the Unit? Use the following categories to respond to this question: (1) Fly ash; (2) Bottom ash; (3) Boiler slag; (4) Fuel gas emission control residuals; (5) Other. If the management unit contains more than one type of material, please identify all that apply. Also, if you identify "other," please specify the other types of materials that are temporarily or permanently contained in the unit(s).?

Winyah Generating Station	Materials in Unit
Ash Pond A	1, 2, 3
Ash Pond B	1, 2, 3
South Ash Pond	1, 2, 3
West Ash Pond	1, 2, 3
Unit 2 Slurry Pond	4
Unit 3 & 4 Slurry Pond	4

4. Was the management unit(s) designed by a Professional Engineer: Is or was the construction of the waste management unit(s) under the supervision of a Professional

Engineer? Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Winyah Generating Station	Design	Construction	Inspection & Monitoring
Ash Pond A	Burns & Roe	Burns & Roe	Santee Cooper
Ash Pond B	Burns & Roe	Burns & Roe	Santee Cooper
	PCRA	PCRA	
South Ash Pond	Burns & Roe	Burns & Roe	Santee Cooper
	Lockwood Greene	Lockwood Greene	
West Ash Pond	Burns & Roe	Burns & Roe	Santee Cooper
	Lockwood Greene	Lockwood Greene	_
Unit 2 Slurry Pond	Burns & Roe	Burns & Roe	Santee Cooper
	Lockwood Greene	Lockwood Greene	_
Unit 3 & 4 Slurry	Burns & Roe	Burns & Roe	Santee Cooper
Pond	Lockwood Greene	Lockwood Greene	

All of the Units were designed and constructed by nationally recognized professional engineering and construction firms which included the oversight and direction of Professional Engineers during all aspects of design and construction. Additionally, Santee Cooper served as our own General Contractor for construction of new Units, which provides an additional level of review by Professional Engineers.

In 1993, a stability evaluation of Ash Pond B was completed and an expansion was designed by Paul C. Rizzo Associates, Inc, (PCRA) a FERC approved Independent Consultant. The geotechnical investigation performed in conjunction with PCRA's evaluation indicated that the embankments were well constructed. Santee Cooper's Construction Services Department constructed the expansion under the direction of in-house professional engineers with periodic inspections by PCRA. In 1999, PCRA performed a geotechnical investigation of Unit 2 Slurry Pond, Unit 3 & 4 Slurry Pond, and West Ash Pond. This investigation indicated that the embankments for these units were well constructed. Further, Ash Ponds A and B are surrounded by a cooling pond. Spills involving Ponds A and B would discharge directly into the cooling pond.

Generating Station personnel perform quarterly inspections of the Units under the direction of a Station Supervisor. The same small group of people performs the inspections to ensure any changes or anomalies will be easily recognized. The inspectors are knowledgeable about the operation, maintenance, and general condition of the impoundments. Written inspection reports are prepared and reviewed and signed by the Station Manager. A copy of these reports is submitted to engineers in the corporate office for additional review.

If any structural or safety issues are noted during the inspections or are later noted in the review cycle of the impoundment inspection reports, they are referred to Santee Cooper's Construction Services Department. Santee Cooper owns and operates a federally licensed hydroelectric facility with over 40 miles of dams & dikes regulated by the Federal Energy Regulatory Commission (FERC). Santee Cooper's Construction Services Department has

developed and oversees a comprehensive and well established dam safety program with a staff of trained dam safety engineers, under the supervision of a Professional Engineer. The staff is on-call 24/7 to address any questions or concerns regarding the structural integrity of any of Santee Cooper's impoundments. This department has the necessary heavy earth moving equipment and has a staff of experienced equipment operators and can readily respond to an emergency.

5. When did the company last assess or evaluate the safety (i.e., structural integrity) of the management unit(s)? Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. If the company plans an assessment or evaluation in the future, when is it expected to occur?

Because of the moderate head, age, good condition, ongoing maintenance, and design and construction of each impoundment, a formal evaluation of the structural integrity has not been performed on these Units with the exception of Ash Pond B before it was raised in 1997. A safety evaluation of Ash Pond B was performed by PCR, an internationally recognized dam safety engineering firm. PCR performs safety evaluations and rehabilitation design of dams, hydraulic control structures and hydroelectric facilities including performing dam safety inspections, geotechnical investigations and stability analyses and hydraulic evaluations. Additionally none of the dikes are over 32 feet in height. Also, these facilities are located in South Carolina's coastal plain where surrounding terrain slopes are typically less than 1-2% further minimizing any potential impacts.

In addition, a task force was established in early 2009 to further evaluate the need and extent for any future structural integrity testing for each Unit based on a review of the hazard rating and other data. This assessment will be completed in 2010.

6. When did a State or a Federal regulatory official last inspect or evaluate the safety (structural integrity) of the management unit(s)? If you are aware of a planned state or federal inspection or evaluation in the future, when is it expected to occur? Please identify the Federal or State regulatory agency or department which conducted or is planning the inspection or evaluation. Please provide a copy of the most recent official inspection report or evaluation.

These Units are not regulated by State or Federal agencies thus no formal structural inspections have been performed by any agencies, except Santee Cooper. Santee Cooper performs our own inspections and maintains the integrity and safety of these structures. However, the South Carolina Department of Health and Environmental Control ("SCDHEC") performs periodic NPDES inspections and because these Units are permitted industrial treatment facilities for station wastewater, the SCDHEC inspection incorporates a review of the operation of the bottom ash ponds and the permitted discharge.

7. Have assessments or evaluations, or inspections conducted by State or Federal regulatory officials conducted within the past year uncovered a safety issue(s) with the management unit(s), and, if so, describe the actions that have been or being taken to

deal with the issue or issues. Please provide any documentation that you have for these actions.

No safety issues have been identified for any of the Winyah impoundments.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of materials currently stored in each of the management unit(s)? Please provide the date that the volume measurement(s) was taken Please provide the maximum height of the management unit(s). The basis for determining maximum height is explained later in this Enclosure.

Winyah Generating	Surface	Total Storage	Volume of	Maximum	Date of Last
Station	Area	Capacity	Materials	Height	Volume
	(acres)	(acre-feet)	Currently Stored	(feet)	Measurement
			(acre-feet)		
Ash Pond A	88	807	726	24.5	Mar. 18, 2009
Ash Pond B	63	537	322	31	Mar. 18, 2009
South Ash Pond	61	1129	565	22	Mar. 18, 2009
West Ash Pond	62	1178	1060	32	Mar. 18, 2009
Slurry Pond 2	34	416	270	12	Mar. 18, 2009
Slurry Pond 3 & 4	100	1700	1190	30	Mar. 18, 2009

9. Please provide a brief history of known spills or unpermitted releases from the unit within the last ten years, whether or not these were reported to State or Federal regulatory agencies. For purposes of this question, please include only releases to surface water or to the land (do not include releases to groundwater)

There have been no spills or unpermitted releases from Ash Pond A, Ash Pond B, South Ash Pond, West Ash Pond, or Slurry Pond 2 within the last ten years.

On February 14, 2008, there was a release of wastewater from Slurry Pond 3 & 4 due to a failure of a seal on a drain pipe remaining in the dike wall from the original construction. The water was sampled and permit limits were not exceeded. There were no other off-site impacts. The release was reported to SC Department of Health and Environmental Control verbally on February 14, 2008 and in a letter on February 21, 2008. The pipe was repaired under the supervision of a Professional Engineer in Santee Cooper's Construction Services Department.

10. Please identify all current legal owner(s) and operator(s) at the facility.

Santee Cooper (South Carolina Public Service Authority) is the owner and operator of all listed impoundments.

## **CERTIFICATION**

I certify that the information contained in this response to EPA's request for information and the accompanying documents is true, accurate, and complete. As to the identified portions of this response for which I cannot personally verify their accuracy, I certify under penalty of law that this response and all attachments were prepared in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations

Signature:

Phil Pierce, P.E. Vice President

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