US ERA ARCHIVE DOCUMENT

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February 2, 2010

**Environmental Affairs** 

## VIA FEDEX

Mr. Richard Kinch U.S. Environmental Protection Agency Two Potomac Yard 2733 South Crystal Drive Fifth Floor; N-5783 Arlington, Virginia 22202-2733

Re: Response to Request to Georgia Power for Plants Hammond, McDonough, Mitchell and Yates for Information Under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C., 9604(e), dated December 29, 2009

Dear Mr. Kinch:

On behalf of Georgia Power, this letter responds to the Information Request of the Environmental Protection Agency ("EPA"), dated December 29, 2009, to provide certain information regarding the management of coal combustion by-products ("CCPs") at Plants Hammond, McDonough, Mitchell and Yates. This request was received by Georgia Power on January 7, 2010. Georgia Power appreciates the purpose of EPA's review of current management practices at CCP impoundments across the electric utility industry, and we trust this response will assist EPA in that regard.

EPA has requested some information which Georgia Power does not ordinarily report or maintain for the use of any state or federal agency. Some of EPA's requests have required Georgia Power to gather, compile, and confirm information in a manner which is beyond its usual business practices. To provide complete and accurate responses, Georgia Power has relied on personnel and information located at the plants, at corporate headquarters, and at Southern Company Services, an affiliated company. Georgia Power has made a reasonable effort to ensure the accuracy and completeness of its responses within the short time demanded by EPA. Georgia Power reserves the right to supplement this response should the company determine it is appropriate to do so based or additional information or for other reasons.

Certain information included in Georgia Power's responses would raise homeland security concerns if publicly disclosed, and some of that information is also confidential commercial information. Accordingly, some of Georgia Power's responses are confidential or not otherwise subject to public disclosure for purposes of 5 U.S.C. § 552(b)(2), (4) and (7) and 18 U.S.C. § 1905. Georgia Power's basis for the claim of confidentiality is described in my

Mr. Richard Kinch February 2, 2010 Page 2

letter to Mr. Richard Kinch of the EPA, dated June 16, 2009. The substantiation for confidentiality described in that letter also applies to Georgia Power Plants Hammond, Yates, McDonough and Mitchell. Georgia Power has provided the responses which include confidential information in a separate appendix for each location. Georgia Power asserts a claim of confidentiality for the information provided in this appendix and has marked it as confidential. Georgia Power provides the information marked as confidential on the condition that EPA not disclose the information publicly pursuant to the Freedom of Information Act or any other authority. Should EPA dispute Georgia Power's claim of confidentiality or consider disclosing the confidential information to any other party, please contact me immediately.

Georgia Power has gathered information to respond to EPA's request in consultation with legal counsel. Providing this information does not constitute any waiver of the attorney-client privilege or any other applicable claim of confidentiality with respect to communications, documents, or any other information of Georgia Power. Georgia Power provides this response on a voluntary basis. Georgia Power does not concede the authority of EPA to compel disclosure of the information provided or to require a certification pursuant to CERCLA Section 104(e), nor does Georgia Power waive any other right or privilege it may possess.

Please direct all future correspondence regarding this and related matters to Charles H. Huling, Vice President, Environmental Affairs, Georgia Power, 241 Ralph McGill Blvd., N.E., 22nd Floor, Bin 10221, Atlanta, Georgia 30308-3374.

Sincerely,

Charles H. Huling

Dary Slater

CHH/Enclosures

Plant Hammond Page 1 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

February 2, 2010

PLANT HAMMOND 5963 Alabama Highway, S.W. Coosa, Georgia 30129

<u>Note:</u> The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams 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.

The National Inventory of Dams (NID) lists the Plant Hammond Ash Ponds 1, 2, and 4, but does not give an NID hazard rating.

Ash	NID Hazard	Date of Initial Operation	GA EPD Safe Dams
Pond	Rating	(included to clarify	Classification
Number		identification	
1	Not rated	1952	Category II
2	Not rated	1969	To Be Studied (TBS)
3	Not listed	1974	TBS
4	Not rated*	1986	TBS

<sup>\*</sup>The most recent NID listing, dated January 29, 2010, did not include the hazard rating.

Ash Pond dam 1 has been classified as a "Category II" dam by the Georgia EPD Safe Dams Program under the Georgia Safe Dams Act of 1978. "Category II" means the classification where improper operation or dam failure would not expect to result in probable loss of human life. This definition is from the Rules of Georgia Department of Natural Resources Environmental Protection Division Chapter 391-3-8 Rules for Dam Safety, Section 391-3-8-.02(e). The Georgia EPD Safe Dams Program has classified the other three ash ponds dams as 'To Be Studied'.

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

Ash Pond 1 was commissioned in 1952.

Ash Pond 2 was commissioned in 1969, and was redeveloped in 1998 by splitting it in half. These two cells are now used as "sluice and excavate" ponds.

Plant Hammond Page 2 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e) Ash Pond 3 was commissioned in 1974.

Ash Pond 4 was commissioned in 1986. Georgia EPD approved ash stacking plans in 1994 and 2000, expanding the capacity of Ash Pond 4.

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).

The Hammond ash ponds contain fly ash, bottom ash, boiler slag, flue gas emission control residuals (Ash Pond 2 only) pyrites and low volume waste as defined under 40 CFR 423.11.

Ash Pond 1 is a co-treatment facility and receives only low volume wastes. Ash Pond 1 does not receive any other liquid – borne material.

Ash Pond 2 is used as a dewatering facility for fly ash and bottom ash. The ash is excavated and transported to the dry stacking area or the Coal Combustion By-product Disposal Facility.

Ash Pond 3 is full, inactive and no longer receives liquid – borne material.

Ash Pond 4 is currently a dry stacking facility and no longer receives liquid – borne material. Although the stack increased capacity, it did not expand the pond.

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

#### Ash Pond 1

- (a) Yes, Ash Pond 1 was designed by a Professional Engineer.
- (b) Yes, Ash Pond 1 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 1 is currently inspected by a Professional Geologist, whose work is supervised by a Professional Engineer.

#### Ash Pond 2

- (a) Yes, Ash Pond 2 dam was designed by a Professional Engineer.
- (b) Yes, Ash Pond 2 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 2 is currently inspected by a Professional Geologist, whose work is supervised by a Professional Engineer.

#### Ash Pond 3

(a) Yes, Ash Pond 3 dam was designed by a Professional Engineer.

Plant Hammond Page 3 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

- (b) Yes, Ash Pond 3 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 3 is currently inspected by a Professional Geologist, whose work is supervised by a Professional Engineer.

## Ash Pond 4

- (a) Yes, Ash Pond 4 dam was designed by a Professional Engineer.
- (b) Yes, Ash Pond 4 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 4 is currently inspected by a Professional Geologist, whose work is supervised by a Professional Engineer.
- 5. [Response provided in an appendix.]
- 6. [Response provided in an appendix.]
- 7. [Response provided in an appendix.]
- 8. [Response provided in an appendix.]
- 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 the Plant Hammond ash ponds within the last ten years.

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

Georgia Power is the legal owner and operator of this facility.

## DO NOT DISCLOSE

#### CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

## **CONFIDENTIAL APPENDIX**

February 2, 2010

PLANT HAMMOND 5963 Alabama Highway, S.W. Coosa, Georgia 30129

<u>Note:</u> The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

- 5. <sup>(a)</sup>When did the company last assess or evaluate the safety (i.e., structural integrity) of the management units(s)? <sup>(b)</sup>Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. <sup>(c)</sup>Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. <sup>(d)</sup>If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. <sup>(e)</sup>If the company plans an assessment or evaluation in the future, when is it expected to occur?
  - (a) Plant Hammond Ash Pond dams 1, 2, 3 and 4 were last inspected on June 17, 2009. These structures are inspected as part of a comprehensive dam safety program run by Southern Company Generation Hydro Services. This dam safety program covers all of Georgia Power Company's ash pond dams, storage pond dams, and hydroelectric dams. Additionally, plant personnel check these dams on a weekly basis.
  - (b) The inspector for Plant Hammond is Ronald D. Wood, PG. Mr. Wood holds a bachelor's degree in geology. He has over 30 years of experience in engineering geology, the majority of this related to dams. He has been a full-time dam safety professional for the last seven years. The dam safety inspections completed by Mr. Wood are additionally reviewed by two geotechnical engineers (Larry B. Wills, PE, and Joel L. Galt, PE, each with over 20 years experience working with dams).
  - (c) No conditions were identified during the inspection that would cause any unsafe situations in or under any of the dikes or associated structures.

Plant Hammond Page A-2

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

#### CONFIDENTIAL BUSINESS INFORMATION

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Repairs were recommended for several sluffed areas, caused by wave action, on the inboard side of the Ash Pond 1. No other conditions were identified during this inspection that would cause any unsafe situations in or under any of the dikes or associated structures.

- (d) The recommended sluff repairs have been completed using a method prescribed by and in consultation with Mr. Ronald D. Wood P.G. The repairs were accomplished by plant personnel who have previously performed identical repairs under Mr. Wood's direction All work related to the ash ponds at Plant Hammond is done in consultation with Mr. Wood.
- (e) The next SCG Hydro Services inspection of the Plant Hammond ash pond dams is scheduled for the first quarter of 2010.
- 6. When did a State or 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.

We are not aware of any inspections of the Plant Hammond ash ponds by federal or state regulatory agencies in the past, and we are not aware of any that are expected to occur in the future.

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

We are not aware of any state or federal assessment, evaluations, or inspections of the Plant Hammond ash ponds conducted within the last year that have uncovered a safety issue with these management units.

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.

Plant Hammond Page A-3

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

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# CONFIDENTIAL BUSINESS INFORMATION

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Management Unit	Surface area (acres)	Total storage capacity (yd³)	Volume of material currently stored in unit (yd³)	Date current volume measurement taken	Maximum height of management unit (feet)
Ash Pond 1	35	1,290,666	943015	Nov. 2006	25
Ash Pond 2	21.2	820,864	677,383	July 2007	24
Ash Pond 3	25	1,108,175	1,108,175	Unknown	28
Ash Pond 4	54	2,003,000	1,731,868	July 2007	35

Plant Yates Page 1 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

February 2, 2010

#### PLANT YATES

708 Dyer Road

Newnan, Georgia 30263

<u>Note:</u> The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams 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.

The National Inventory of Dams (NID) lists Plant Yates Ash Ponds 2 and 3.

Ash Pond	NID Hazard	Date of Initial Operation	GA EPD Safe Dams
Number	Rating	(included to clarify	Classification
		identification	
1	Not Rated	1950	Not Classified
2 (Shown as	Not Rated*	1966	Category II
Ash Pond 1 on			
NID list)			
3 (Shown as	Not Rated*	1976	Category II
Emergency			
Ash Pond on			
NID list)			
Gypsum Solid	Not Rated	1992	Not Classified
Waste Facility			
Pond A	Not Rated	1975	Not Classified
Pond B	Not Rated	1976	Not Classified
Pond C	Not Rated	1976	Not Classified
B' Pond	Not Rated	1976	Not Classified

<sup>\*</sup>The most recent NID listing, dated January 29, 2010, did not include the hazard rating.

Ash Pond dams 2 and 3 have been classified as a 'Category II' dam by the Georgia EPD Safe Dams Program under the Georgia Safe Dams Act of 1978. "Category II' means the classification where improper operation or dam failure would not expect to result in probable loss of human life. This definition is from the Rules of Georgia Department of Natural

Resources Environmental Protection Division Chapter 391-3-8 Rules for Dam Safety, Section 391-3-8-.02(e). Ash Pond 1, the Gypsum Solid Waste Facility, Ash Ponds A, B, C, and the B' Ash Pond have not been classified.

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

Ash Pond 1 was commissioned in 1950.

Ash Pond 2 was commissioned in 1966. The dike was raised to elevation 729, which was completed in 1970.

Ash Pond 3 was commissioned in 1976. The Georgia EPD approved a stacking plan in 2001 that increased the capacity of Ash Pond 3.

Gypsum Solid Waste Facility was permitted in 1992 as a Private Industrial Solid Waste Disposal Facility.

Ash Pond A was commissioned in 1975.

Ash Pond B was commissioned in 1976.

Ash Pond C was commissioned in 1976.

Ash Pond B' Pond was commissioned in 1976.

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).

The Yates Ash Pond 2 contains fly ash, bottom ash, boiler slag, flue gas emission control residuals, pyrites and low volume waste as defined under 40 CFR 423.11

The Yates Ash Pond 1 contains fly ash, bottom ash, boiler slag, pyrites and low volume waste as defined under 40 CFR 423.11. The Yates Ash Pond 1 is inactive and does not currently receive liquid-borne material. Ash Pond 1 currently serves as the coal pile runoff pond.

Ash Pond 3 is full, inactive and no longer receives liquid borne material. Ash Pond 3 currently serves as a sediment pond for the B' pond. Ash Pond 3 contains fly ash, bottom ash, boiler slag, and pyrites.

The B' Ash Pond consists of dewatering cells for ash dredged from Ash Pond 2. The ash is excavated and placed in the R6 dry ash landfill (a Private Industrial Solid Waste Disposal Facility).

Ash Pond A, B, and C are full, inactive ponds and are covered. These no longer receive liquid – borne material. These ponds were constructed as temporary ponds during the transition to Ash Pond 3. Ash Pond C has been incorporated into the Private Industrial Waste Landfill permit for the R6 Dry Ash Landfill. Ash Ponds A, B, and C contain fly ash, bottom ash, boiler slag, and pyrites.

The Gypsum Solid Waste Facility currently receives liquid – borne material (gypsum slurry with ash mix) generated from the FGD process. The Gypsum Solid Waste Facility is currently under a Private Industrial Solid Waste Permit.

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

#### Ash Pond 1

- (a) Yes, Ash Pond 1 was designed by a Professional Engineer.
- (b) To date we have been unable to locate information that would document that Ash Pond 1 was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 1 is currently inspected by a Professional Engineer.

#### Ash Pond 2

- (a) Yes, Ash Pond 2 was designed by a Professional Engineer.
- (b) Yes, Ash Pond 2 was constructed by a Professional Engineer.
- (c) Yes, Ash Pond 2 is currently inspected by a Professional Engineer.

#### Ash Pond 3

- (a) Yes, Ash Pond 3 dam was designed by a Professional Engineer.
- (b) Yes, Ash Pond 3 was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 3 is currently inspected by a Professional Engineer.
- 5. [Response provided in an appendix.]
- 6. [Response provided in an appendix.]
- 7. [Response provided in an appendix.]
- 8. [Response provided in an appendix.]
- 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 the Plant Yates ash ponds within the last ten years.

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

Georgia Power is the legal owner and operator of this facility.

Plant Yates Page A-1

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

#### CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

## **CONFIDENTIAL APPENDIX**

February 2, 2010

PLANT YATES 708 Dyer Road Newnan, Georgia 30263

Note: The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

- 5. (a) When did the company last assess or evaluate the safety (i.e., structural integrity) of the management units(s)? (b) Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. (c) Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. (d) If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. (e) If the company plans an assessment or evaluation in the future, when is it expected to occur?
  - (a) Plant Yates Ash Pond dams 1, 2 and 3 and the Gypsum Solid Waste Facility were last inspected on December 29, 2009. These structures are inspected as part of a comprehensive dam safety program run by Southern Company Generation Hydro Services. This dam safety program covers all of Georgia Power Company's ash pond dams, storage pond dams, and hydroelectric dams. Additionally, plant personnel check these dams (Ash Ponds dams 1, 2, and 3) and the Gypsum Solid Waste Facility on a weekly basis.
  - (b) The inspector for Plant Yates is Hugh H. Armitage, PE. Mr. Armitage holds a Bachelors Degree in Civil Engineering and a Master Degree in Geotechnical Engineering. He has over 20 years of experience in civil and geotechnical engineering with a considerable portion of this time being related to slope stability studies and the design, construction, and inspection of dams and earth-fill embankments. He has been a full-time dam safety professional with Southern Company for the last two years. The dam safety inspection results by Mr. Armitage are reviewed by two geotechnical engineers (Larry B. Wills, PE and Joel L. Galt, PE each with over 20 years experience working with dams).

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#### CONFIDENTIAL BUSINESS INFORMATION

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- (c) No conditions were identified during the inspection that would cause any unsafe situations in or under any of the dikes or associated structures. The recommendations that were made as a result of this inspection dealt with ongoing maintenance items such as dressing erosion and rodent holes, monitoring wet/damp areas, and filling tire ruts. All of these recommendations are being addressed as ongoing routine maintenance.
- (d) As the recommendations that were made as a result of this inspection dealt with ongoing maintenance items, no special qualifications are required for this work. All work related to the ash pond dikes at Plant Yates is done in consultation with Mr. Hugh Armitage, PE.
- (e) The next SCG Hydro Services inspection of the Plant Yates ash pond dams is scheduled for the second quarter of 2010.
- 6. When did a State or 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.

We are not aware of any inspections of the Plant Yates Ash Ponds by State or Federal regulatory agencies in the past, and we are not aware of any that are expected to occur in the future.

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

We are not aware of any state or federal assessment, evaluations, or inspections of the Plant Yates ash ponds conducted within the last year that have uncovered a safety issue with these management units.

Plant Yates Page A-3

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

## CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

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.

Management	Surface	Total	Volume of	Date current	Maximum
Unit	area	storage	material	volume	height of
	(acres)	capacity	currently	measurement	management
		$(yd^3)$	stored in unit (yd <sup>3</sup> )	taken	unit (feet)
Ash Pond 1	17.1	297,000	297,000	Unknown	Approximately 15
Ash Pond 2	50	1,778,913	1,198,000	April 2009	Approximately 39
Ash Pond 3	69	700,000	700,000	Unknown	Approximately 37
Gypsum Solid Waste Facility	16	218,319	53,746	January 2010	14
Pond A	19.2	Unknown	Unknown	Unknown	Unknown
Pond B	6.3	Unknown	Unknown	Unknown	Unknown
Pond C	12.4	Unknown	Unknown	Unknown	Unknown
B' Pond	29.8	480,000	240,000	Unknown	Unknown

February 2, 2010

PLANT MITCHELL 5200 Radium Springs Road Albany, Georgia 31705

Note: The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams 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.

The National Inventory of Dams (NID) does list the Plant Mitchell Ash Pond 1 and Ash Pond 2 dam but not Pond A. The table below summarizes our responses to the requested information.

Ash	NID Hazard	Date of Initial Operation	GA EPD Safe Dams
Pond	Rating	(included to clarify	Classification
number		identification	
Α	Not Listed	Circa 1948	Not categorized
1	Not Rated*	1963	Category II
2	Not Rated*	1979	To Be Studied (TBS) by
			EPD

<sup>\*</sup>The most recent NID listing, dated January 29, 2010, did not include the hazard rating.

Ash Pond dam 1 has been classified as a 'Category II' dam by the Georgia EPD Safe Dams Program under the Georgia Safe Dams Act of 1978. "'Category II' means the classification where improper operation or dam failure would not expect to result in probable loss of human life. This definition is from the Rules of Georgia Department of Natural Resources Environmental Protection Division Chapter 391-3-8 Rules for Dam Safety, Section 391-3-8-.02(e). The Georgia EPD Safe Dams Program has classified Ash Pond 2 as 'To Be Studied'. We do not know the basis for the NID Hazard Rating for Ash Pond 1.

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

Ash Pond A was commissioned circa 1948.

Ash Pond 1 was commissioned in 1963.

Ash Pond 2 was commissioned in 1979.

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).

The Mitchell ash ponds contain fly ash, bottom ash, boiler slag, pyrites and low volume waste as defined under 40 CFR 423.11.

Ash Pond A is full, inactive and covered and no longer receives liquid-borne material. This site is now occupied by the combustion turbine installation at Plant Mitchell.

Ash Pond 1 is full, inactive, and no longer receives liquid borne material.

Ash Pond 2 is active and contains fly ash, bottom ash, boiler slag, pyrites and low volume waste as defined under 40 CFR 423.11.

4.<sup>(a)</sup>Was the management unit(s) designed by a Professional Engineer? <sup>(b)</sup>Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? <sup>(c)</sup>Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

#### Ash Pond A

- (a) To date we have been unable to locate information that would document that Ash Pond A was designed by a Professional Engineer.
- (b) To date we have been unable to locate information that would document that Ash Pond A was constructed under the supervision of a Professional Engineer.
- (c) No, Ash Pond A is not currently inspected by a Professional Engineer.

### Ash Pond 1

- (a) To date we have been unable to locate information that would document that Ash Pond 1 was designed by a Professional Engineer.
- (b) To date we have been unable to locate information that would document that Ash Pond 1 was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 1 is currently inspected by a Professional Engineer.

#### Ash Pond 2

(a) Yes, Ash Pond 2 dam was designed by a Professional Engineer.

- (b) Yes, Ash Pond 2 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 2 is currently inspected by a Professional Engineer.
- 5. [Response provided in an appendix.]
- 6. [Response provided in an appendix.]
- 7. [Response provided in an appendix.]
- 8. [Response provided in an appendix.]
- 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 the Plant Mitchell ash ponds within the last ten years.

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

Georgia Power is the legal owner and operator of this facility.

Plant Mitchell Page 1 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

#### CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

## CONFIDENTIAL APPENDIX

February 2, 2010

PLANT MITCHELL 5200 Radium Springs Road Albany, Georgia 31805

<u>Note:</u> The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

- 5. <sup>(a)</sup>When did the company last assess or evaluate the safety (i.e., structural integrity) of the management units(s)? <sup>(b)</sup>Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. <sup>(c)</sup>Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. <sup>(d)</sup>If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. <sup>(e)</sup>If the company plans an assessment or evaluation in the future, when is it expected to occur?
  - (a) Plant Mitchell Ash Pond dams 1 and 2 were last inspected on November 5, 2009. These structures are inspected as part of a comprehensive dam safety program run by Southern Company Generation Hydro Services. This dam safety program covers all of Georgia Power Company's ash pond dams, storage pond dams, and hydroelectric dams. Additionally, plant personnel check these dams on a weekly basis.
  - (b) The inspector for Plant Mitchell is Larry B. Wills, PE. Mr. Wills holds a bachelor's degree in civil engineering. He has over 30 years of experience in civil engineering, the majority of which is related to dams. He has been a full-time dam safety professional for the last 23 years. The dam safety inspections completed by Mr. Wills are additionally reviewed by Joel L. Galt, PE, who has over 20 years experience working with dams.
  - (c) No conditions were identified during the inspection that would cause any unsafe situations in or under any of the dikes or associated structures. The recommendations that were made as a result of this inspection dealt with ongoing maintenance items such

Plant Mitchell Page 1 of 6 Georgia Power Responses to EPA Request for Information under Section 104(e) of the

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

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as dressing erosion rills, cutting woody brush, treating fire ant mounds, and filling tire ruts. All of these recommendations are being addressed as ongoing routine maintenance.

- (d) As the recommendations that were made as a result of this inspection dealt with ongoing maintenance items, no special qualifications are required for this work. All work related to the ash ponds at Plant Mitchell has been done in consultation with Mr. Larry B. Wills, PE.
- (e) The next SCG Hydro Services inspection of the Plant Mitchell ash pond dams is scheduled for the second quarter of 2010.
- 6. When did a State or 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.

We are not aware of any inspections of the Plant Mitchell ash ponds by federal or state regulatory agencies in the past and we are not aware of any that are expected to occur in the future.

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

We are not aware of any state or federal assessment, evaluations, or inspections of the Plant Mitchell ash ponds conducted within the last year that have uncovered a safety issue with these management units.

Plant Mitchell Page 1 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

## CONFIDENTIAL BUSINESS INFORMATION

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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.

Management Unit	Surface area (acres)	Total storage capacity (yd <sup>3</sup> )	Volume of material currently stored in unit (yd³)	Date current volume measurement taken	Maximum height of management unit (feet)
Ash Pond A	4.1	99,080	99,080	Unknown	N/A
Ash Pond 1	44	1,063,295	1,063,295	Unknown	23
Ash Pond 2	43	1,039,129	673,144	Oct 2008	33

February 2, 2010

PLANT MCDONOUGH 5551 S Cobb Dr SE Smyrna, GA 30080, US

<u>Note:</u> The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

1. Relative to the National Inventory of Dams 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.

	· · · · · · · · · · · · · · · · · · ·		1
The National	NID Hazard	Date of Initial Operation	GA EPD Safe Dams
Inventory of	Rating	(included to clarify	Classification
Dams (NID)		identification	
does not list			
Ash Pond			
dams 1, 2			
and 3 at			
Plant			
McDonough.			
Ash Pond 4			
is listed on			
the NID.			
Ash Pond			
Number			
1	Not listed	1964	Not classified
2	Not listed	1968	Not classified
3	Not listed	1969	Not classified
4	Not rated*	1972	Category I

<sup>\*</sup>The most recent NID listing, dated January 29, 2010, did not include the hazard rating.

Ash Pond dams 1, 2 and 3 have not been classified by the Georgia EPD Safe Dams Program.

Ash Pond dam 4 is classified as 'Category I' by the Georgia EPD Safe Dams Program under Georgia Safe Dams Act of 1978. "Category I" means the classification where improper operation or dam failure would result in probable loss of human life. Situations

Plant McDonough Page 2 of 6

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

constituting "probable loss of life" are those situations involving frequently occupied structures or facilities, including, but not limited to, residences, commercial and manufacturing facilities, schools, and churches. This definition is from the Rules of Georgia Department of Natural Resources Environmental Protection Division Chapter 391-3-8 Rules for Dam Safety, Section 391-3-8-.02(d)

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

Ash Pond 1 was commissioned in 1964.

Ash Pond 2 was commissioned in 1968.

Ash Pond 3 was commissioned in 1969.

Ash Pond 4 was commissioned in 1972. (Ash Pond 4 was not used until June or July 1977.)

The capacity of Ash Pond 3 and 4 was expanded in 1995 and again in 2006 with Georgia EPD's approval of a dry ash stacking plan for the storage of ash within the existing boundaries.

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).

The Plant McDonough ash ponds contain fly ash, bottom ash, boiler slag, pyrites and low volume waste as defined under 40 CFR 423.11.

Ash Pond 1 is full, inactive and covered. It no longer receives liquid – borne material.

Ash Pond 2 is currently used as a dewatering facility for bottom ash. Bottom ash, sluiced to Ash Pond 2, is excavated for market or disposal in dry stack.

Ash Pond 3 receives liquid – borne wastes during sluicing operations for fly ash. The majority of the area of Ash Ponds 3 and 4 is included in an EPD approved dry ash stacking plan.

A portion of Ash Pond 4 serves as a co-treatment facility, receives low-volume wastes, and acts as a sedimentation basin for the dry stack operation.

4.<sup>(a)</sup>Was the management unit(s) designed by a Professional Engineer? <sup>(b)</sup>Is or was the construction of the waste management unit(s) under the supervision of a Professional Engineer? <sup>(c)</sup>Is inspection and monitoring of the safety of the waste management unit(s) under the supervision of a Professional Engineer?

Ash Pond 1

(a) Yes, Ash Pond 1 dam was designed by a Professional Engineer.

(b) To date we have been unable to locate information that would document that Ash Pond 1 was constructed under the supervision of a Professional Engineer.

(c) Ash Pond 1 is currently inspected by a Professional Engineer.

#### Ash Pond 2

- (a) Yes, Ash Pond 2 dam was designed by a Professional Engineer.
- (b) To date we have been unable to locate information that would document that Ash Pond 2 was constructed under the supervision of a Professional Engineer.
- (c) Ash Pond 2 is currently inspected by a Professional Engineer.

#### Ash Pond 3

- (a) Yes, Ash Pond 3 dam was designed by a Professional Engineer.
- (b) To date we have been unable to locate information that would document that Ash Pond 3 was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 3 is currently inspected by a Professional Engineer.

#### Ash Pond 4

- (a) Yes, Ash Pond 4 dam was designed by a Professional Engineer.
- (b) Yes, Ash Pond 4 dam was constructed under the supervision of a Professional Engineer.
- (c) Yes, Ash Pond 4 is currently inspected by a Professional Engineer.
- 5. [Response provided in an appendix.]
- 6. [Response provided in an appendix.]
- 7. [Response provided in an appendix.]
- 8. [Response provided in an appendix.]
- 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 the Plant McDonough ash ponds within the last ten years.

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

Georgia Power is the legal owner and operator of this facility.

Plant McDonough Page A-1

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

## DO NOT DISCLOSE

#### CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

## **CONFIDENTIAL APPENDIX**

February 2, 2010

PLANT MCDONOUGH 5551 S Cobb Dr SE Smyrna, GA 30080, US

Note: The text of EPA's questions is included below in *italics*. Georgia Power's responses are provided in plain text.

Please provide the information requested below for each surface impoundment or similar diked or bermed management unit(s) or management units designated as landfills which receive liquid-borne material for the storage or disposal of residuals or by-products from the combustion of coal, including, but not limited to, fly ash, bottom ash, boiler slag, or flue gas emission control residuals. This includes units that no longer receive coal combustion residues or by-products, but still contain free liquids.

- 5. (a) When did the company last assess or evaluate the safety (i.e., structural integrity) of the management units(s)? (b) Briefly describe the credentials of those conducting the structural integrity assessments/evaluations. (c) Identify actions taken or planned by facility personnel as a result of these assessments or evaluations. (d) If corrective actions were taken, briefly describe the credentials of those performing the corrective actions, whether they were company employees or contractors. (e) If the company plans an assessment or evaluation in the future, when is it expected to occur?
  - (a) The Plant McDonough Ash Pond dikes 1, 2, 3 and 4 were last inspected on December 10, 2009. These structures are inspected as part of a comprehensive dam safety program run by Southern Company Generation Hydro Services. This dam safety program covers all of Georgia Power Company's ash pond dams, storage pond dams, and hydroelectric dams. Additionally, plant personnel check these dams on a frequent basis.
  - (b) The inspector for Plant McDonough is Hugh H. Armitage, PE. Mr. Armitage holds a Bachelor's Degree in Civil Engineering and a Master's Degree in Geotechnical Engineering. He has over 20 years of experience in civil and geotechnical engineering with a considerable portion of this time being related to slope stability studies and the design, construction, and inspection of dams and earth-fill embankments. He has been a full-time dam safety professional with Southern Company for the last 2 years. The dam safety inspection results by Mr. Armitage are reviewed by two geotechnical engineers (Larry B. Wills, PE and Joel L. Galt, PE each with over 20 years experience working with dams).

Plant McDonough

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Georgia Power Responses to EPA Request for Information under Section 104(e) of the

Georgia Power Responses to EPA Request for Information under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e)

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- (c) No conditions were identified during the inspection that would cause unsafe situations in or under any of the dikes or associated structures. The recommendations that were made as a result of the recent inspection dealt with ongoing maintenance items such as dressing erosion rills, treating ant mounds, and filling tire ruts. All of these recommendations are being addressed as ongoing routine maintenance.
- (d) As the other recommendations that were made as a result of this inspection dealt with ongoing maintenance items, no special qualifications are required for this work. All work related to the ash ponds at Plant McDonough are done in consultation with Mr. Armitage.
- (e) The next inspection by Southern Company Generation Hydro Services of the Plant McDonough ash pond dikes is scheduled for the first quarter of 2010.
- 6. When did a State or 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.

Plant McDonough Ash Pond 4 dam was last inspected by a Georgia Environmental Protection Division Safe Dams Program official on February 1, 2010. Plant McDonough has not yet received the report for this inspection. We have attached a copy of the letter report from the Safe Dams Program, dated May 14, 2009, to Georgia Power regarding the March 4, 2009 inspection.

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

Plant McDonough Ash Pond 4 was last inspected by a Georgia Environmental Protection Division Safe Dams Program Official on February 1, 2010. The previous inspection was performed on March 4, 2009. Items identified during both inspections by the Safe Dams Inspector were all maintenance items and not dam safety issues. These items have all been addressed and satisfactorily completed by Plant McDonough personnel, as shown in the attached letter, dated January 11, 2010.

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.

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## CONFIDENTIAL BUSINESS INFORMATION

Not Subject to Disclosure under the Freedom of Information Act

Management Unit	Surface area (acres)	Total storage capacity (yd³)	Volume of material currently stored in unit (yd³)	Date current volume measurement taken	Maximum height of management unit (feet)
Ash Pond 1	25.3	880,000	880,000	Unknown	30
Ash Pond 2	6.5	190,000	Varies	Unknown	16
Ash Pond 3	23	1,036,000	1,036,000	Unknown	39
Ash Pond 4	41	3,220,000	2,988,000	May 2009	68