



March 26, 2009

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

Re: Responses to Requests to Alabama Power Company Plant Managers and Chief Executive Officer for Information Under Section 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9604(e), dated March 9, 2009

Dear Mr. Kinch:

On behalf of Alabama Power Company ("Alabama Power"), this letter responds to requests by the Environmental Protection Agency ("EPA"), dated March 9, 2009, to provide certain information regarding the management of coal combustion by-products ("CCPs") at five Alabama Power plants. This letter also responds to the letter dated March 9, 2009, to the Chief Executive Officer of Alabama Power. Alabama 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 Alabama Power does not ordinarily report or maintain for the use of any state or federal agency. Some of EPA's requests have required Alabama Power to gather, compile, and confirm information in a manner which is beyond its usual business practices. To provide complete and accurate responses, Alabama Power has relied on personnel and information located at the plants, at corporate headquarters, and at Southern Company Services, an affiliated company. Alabama Power has made a reasonable effort to ensure the accuracy and completeness of its responses within the short time demanded by EPA. Alabama Power reserves the right to supplement this response should the company determine it is appropriate to do so based on additional information or for other reasons.

Enclosed are responses to EPA's letters to the following facilities:

- James M. Barry Electric Generating Plant in Bucks, Alabama
- Gadsden Electric Generating Plant in Gadsden, Alabama
- William Crawford Gorgas Electric Generating Plant near Parrish, Alabama

- Greene County Electric Generating Plant near Demopolis, Alabama
- James H. Miller, Jr. Electric Generating Plant near West Jefferson, Alabama

Certain information included in Alabama Power's responses would raise homeland security concerns if publicly disclosed, and some of that information is also confidential commercial information. Accordingly, some of Alabama 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. For each facility, Alabama Power has provided the responses which include confidential information in a separate appendix. Alabama Power asserts a claim of confidentiality for the information provided in all of these appendices and has marked them as confidential. Alabama 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 Alabama Power's claim of confidentiality or consider disclosing the confidential information to any other party, please contact me immediately.

EPA's letter to the Chief Executive Officer requests a list of facilities which have one or more surface impoundments or similar diked or bermed units for the management of CCPs, but which did not receive an information request from EPA. Alabama Power owns one such facility:

> Ernest C. Gaston Electric Generating Plant Highway 25 South Wilsonville, Alabama 35186

Alabama 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 Alabama Power. Alabama Power provides this response on a voluntary basis. Alabama 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 Alabama Power waive any other right or privilege it may possess.

Please direct all future correspondence regarding this and related matters to Matthew W. Bowden, Vice President, Environmental Affairs, Alabama Power Company, 600 North Eighteenth Street, Birmingham, Alabama, 35203.

Sincerely,

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Matthew W. Bowden Vice President **Environmental Affairs** Alabama Power Company

Enclosures

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

GORGAS ELECTRIC GENERATING PLANT 460 Gorgas Road Parrish, Alabama 35580

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama 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 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.

Responses are provided with respect to the ash pond dam and the gypsum dam at Gorgas. The Gorgas ash pond dam is listed in the National Inventory of Dams ("NID") database (Record No. 1198, "Rattlesnake Dam") and has been assigned a downstream hazard potential rating of Significant Hazard (S). The NID listing for the Gorgas ash pond dam indicates the source agency is "AL." Alabama Power's review provides no basis to indicate which state agency assigned this rating or the basis for the rating. The Gorgas gypsum pond is not listed or rated in the NID database. No federal or state agency regulates the Gorgas ash pond dam or gypsum pond structures relative to the NID.

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

Available information indicates the Gorgas ash pond dam went into service in 1954 and was expanded in 1979 and 2007. The Gorgas gypsum pond was completed in 2007.

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).

Gorgas ash pond: fly ash, bottom ash, boiler slag, flue gas emission control residuals, and other (regulatory permitted low volume wastes, i.e., waste that is not hazardous for purposes of RCRA Subtitle C and is otherwise permitted under applicable regulations such as 40 C.F.R. § 423.11).

Gorgas gypsum pond: flue gas emission control residuals (gypsum only).

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?

Alabama Power's review does not indicate the professional qualifications and credentials of those associated with the original design and construction of the Gorgas ash pond dam in the early 1950s. However, the structure is supported by an operational history of more than 50 years. The dam has been subject to a comprehensive dam safety inspection program since 1971, including regular dam safety inspections by engineers who are employed by Southern Company Services and who hold current Professional Engineer licenses in Alabama. The Gorgas gypsum pond was designed and built under the supervision of licensed Professional Engineers. The gypsum pond is new and will be added to the comprehensive dam inspection program described above.

- 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).

Alabama Power's review provides no basis to indicate a spill or unpermitted release at either the Gorgas ash pond or the Gorgas gypsum pond within the last ten years.

10. Please identify all current legal owner(s) and operator(s) at the facility.Alabama Power Company is the owner and operator of this facility.

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CONFIDENTIAL BUSINESS INFORMATION NOT SUBJECT TO DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT

CONFIDENTIAL APPENDIX

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

> GORGAS ELECTRIC GENERATING PLANT 460 Gorgas Road Parrish, Alabama 35580

> > March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama Power's responses are provided in plain text. This confidential appendix provides only those questions and responses for which the response includes information subject to a claim of confidentiality.

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. 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?

The most recent dam safety inspection of the Gorgas ash pond dam was conducted on November 12, 2008. The inspection was conducted by two engineers from Alabama Power's affiliate, Southern Company Services. The inspectors are both licensed Professional Engineers in Alabama, have multiple years of experience, and specialize in dam safety. The dam safety inspection of the Gorgas ash pond dam is currently scheduled on an annual frequency. The gypsum pond is new and has had no issues to date. An inspection of the ash pond dam and gypsum pond will be conducted no later than November 2009 at a date to be determined.

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The recommendations made as a result of the most recent dam safety inspection of the Gorgas ash pond dam can all be characterized as maintenance or monitoring activities and required no action with respect to the structural integrity or continued safe operation of the dam. The actions taken in response to the recommendations require no engineering or dam safety credentials and have been or will be addressed by facility personnel in the course of their normal duties.

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.

Alabama Power has identified no basis to indicate a federal or state agency has inspected or evaluated the ash pond or gypsum pond at Gorgas for purposes of the structural integrity of those structures.

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.

See Question 6. In addition, Alabama Power's dam safety program has not identified any issues or conditions that would affect the continued safe operation of the facility.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material 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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Gorgas	Ash Pond	Gypsum Pond
Approximate acres	420	21
Approximate storage capacity (cubic yards)*	17,342,755	1,585,053
Approximate volume stored (cubic yards)*	6,217,573	212,346
Approximate date measurement taken	2009	2009
Approximate maximum height	140 feet	80 feet

* Cubic yard figures are estimates derived by qualified personnel from available information.

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

GREENE COUNTY ELECTRIC GENERATING PLANT County Road 18 Demopolis, Alabama 36732

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama 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 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 Greene County ash pond dam is not listed in the National Inventory of Dams ("NID") database and therefore is not rated. No federal or state agency regulates the Greene County ash pond dam structures relative to the NID.

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

Available information indicates the Greene County ash pond dam went into service in 1964 and that the ash pond structure was expanded in 1996.

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).

Fly ash, bottom ash, boiler slag, flue gas emission control residuals, and other (regulatory permitted low volume wastes, i.e., waste that is not hazardous for purposes of RCRA Subtitle C and is otherwise permitted under applicable regulations such as 40 C.F.R. § 423.11).

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?

Alabama Power's review does not indicate the professional qualifications and credentials of those associated with the original design and construction of the Greene County ash pond dam in the early 1960s. However, the structure is supported by an operational history of more than 40 years. The dam has been subject to a comprehensive dam safety inspection program since 1971, including regular dam safety inspections by engineers who are employed by Southern Company Services and who hold current Professional Engineer licenses in Alabama.

- 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).

Alabama Power's review provides no basis to indicate a spill or unpermitted release at the Greene County ash pond within the last ten years.

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

Alabama Power Company is the sole operator of this facility and owns approximately 60 percent. Mississippi Power Company owns the remaining interest.

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CONFIDENTIAL APPENDIX

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

GREENE COUNTY ELECTRIC GENERATING PLANT County Road 18 Demopolis, Alabama 36732

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama Power's responses are provided in plain text. This confidential appendix provides only those questions and responses for which the response includes information subject to a claim of confidentiality.

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. 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?

A dam safety inspection of the Greene County ash pond dam was conducted on January 14, 2009. Due to an accessibility issue related to a portion of the facility, a follow-up inspection was recommended and occurred on March 24, 2009. The inspections were conducted by engineers from Alabama Power's affiliate, Southern Company Services. The inspectors are licensed Professional Engineers in Alabama, have multiple years of experience, and specialize in dam safety. The dam safety inspection of the Greene County ash pond dam is currently scheduled on an annual frequency.

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Certain minor repairs were recommended as a result of the most recent dam safety inspections of the Greene County ash pond dam. One involves repair to flatten the slope near the downstream toe of a short section of dike, which had inadvertently been steepened by dozer operations in the area beyond the toe. Another involves the repair of a small slide on the upstream slope of the dam near the discharge inlet structure. The recent re-inspection also identified an area of erosion along the bank of the plant barge canal adjacent to the ash pond dike. This condition poses no immediate threat of a release but will be repaired to prevent further erosion. No conditions were noted that would affect the continued safe operation of the ash pond dam. Other recommendations can be characterized as maintenance or monitoring activities and required no action with respect to the structural integrity or continued safe operation of the dam. A team which includes registered Professional Engineers will determine the most appropriate means to address the erosion issue. Other actions taken in response to the recommendations require no engineering or dam safety credentials and have been or will be addressed by facility personnel in the course of their normal duties.

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.

Alabama Power has identified no basis to indicate a federal or state agency has inspected or evaluated the ash pond at Greene County for purposes of the structural integrity of that structure.

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.

See Question 6. In addition, Alabama Power's dam safety program has not identified any issues or conditions that would affect the continued safe operation of the facility.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material 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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Greene County Ash Pond		
Approximate acres	474	
Approximate storage capacity (cubic yards)*	8,600,000	
Approximate volume stored (cubic yards)*	4,700,000	
Approximate date measurement taken	2009	
Approximate maximum height	25 feet	

Cubic yard figures are estimates derived by qualified personnel from available information.

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

BARRY ELECTRIC GENERATING PLANT 15300 Highway 43 North Bucks, Alabama 36512

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama 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 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 Barry ash pond dam is not listed in the National Inventory of Dams ("NID") database and therefore is not rated. No federal or state agency regulates the Barry ash pond dam structure relative to the NID.

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

Available information indicates the Barry ash pond dam went into service in 1965 and that structural modifications were made to expand the dam in 1972, 1992, 1998, and 2004.

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).

Fly ash, bottom ash, boiler slag, flue gas emission control residuals, and other (regulatory permitted low volume wastes, i.e., waste that is not hazardous for purposes of RCRA Subtitle C and is otherwise permitted under applicable regulations such as 40 C.F.R. § 423.11).

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?

Alabama Power's review does not indicate the professional qualifications and credentials of those associated with the original design and construction of the Barry ash pond dam in the 1960s. However, the structure is supported by an operational history of more than 40 years. The dam has been subject to a comprehensive dam safety inspection program since 1972, including regular dam safety inspections by engineers who are employed by Southern Company Services and who hold current Professional Engineer licenses in Alabama.

- 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).

Alabama Power's review provides no basis to indicate a spill or unpermitted release at the Barry ash pond within the last ten years.

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

Alabama Power Company is the owner and operator of this facility.

CONFIDENTIAL BUSINESS INFORMATION NOT SUBJECT TO DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT

CONFIDENTIAL APPENDIX

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

> BARRY ELECTRIC GENERATING PLANT 15300 Highway 43 North Bucks, Alabama 36512

> > March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama Power's responses are provided in plain text. This confidential appendix provides only those questions and responses for which the response includes information subject to a claim of confidentiality.

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. 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?

The most recent dam safety inspection of the Barry ash pond dam was conducted on January 20, 2009. The inspection was conducted by two engineers from Alabama Power's affiliate, Southern Company Services. The inspectors are both licensed Professional Engineers in Alabama, have multiple years of experience, and specialize in dam safety. The dam safety inspection of the Barry ash pond dam is currently scheduled on an annual frequency. An inspection of the ash pond dam will be conducted no later than January, 2010, at a date to be determined.

CONFIDENTIAL BUSINESS INFORMATION NOT SUBJECT TO DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT

The recommendations made as a result of the most recent dam safety inspection of the Barry ash pond dam can all be characterized as maintenance or monitoring activities and required no action with respect to the structural integrity or continued safe operation of the dam. The actions taken in response to the recommendations require no engineering or dam safety credentials and have been or will be addressed by facility personnel in the course of their normal duties.

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.

Alabama Power has identified no basis to indicate a federal or state agency has inspected or evaluated the ash pond at Barry for purposes of the structural integrity of that structure.

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.

See Question 6. In addition, Alabama Power's dam safety program has not identified any issues or conditions that would affect the continued safe operation of the facility.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material 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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Barry Ash Pond		
Approximate acres	597	
Approximate storage capacity (cubic yards)*	9,623,753	
Approximate volume stored (cubic yards)*	6,305,645	
Approximate date measurement taken	2007	
Approximate maximum height	20 feet	

* Cubic yard figures are estimates derived by qualified personnel from available information.

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

GADSDEN ELECTRIC GENERATING PLANT 1000 Goodyear Ave. Gadsden, Alabama 35903

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama 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 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 Gadsden ash pond dam is listed in the National Inventory of Dams ("NID") database (Record No. 1428) and has been assigned a downstream hazard potential rating of Low Hazard (L). The NID listing for the Gadsden ash pond dam indicates the source agency is "AL." Alabama Power's review provides no basis to indicate which state agency assigned this rating or the basis for the rating. No federal or state agency regulates the Gadsden ash pond dam structure relative to the NID.

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

Available information indicates the Gadsden ash pond dam went into service in 1948 and was expanded in 1976, 1979, and 1983.

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).

Fly ash, bottom ash, boiler slag, flue gas emission control residuals, and other (regulatory permitted low volume wastes, i.e., waste that is not hazardous for purposes of RCRA Subtitle C and is otherwise permitted under applicable regulations such as 40 C.F.R. § 423.11).

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?

Alabama Power's review does not indicate the professional qualifications and credentials of those associated with the original design and construction of the Gadsden ash pond dam in the late 1940s. However, the structure is supported by an operational history of more than 60 years. The dam has been subject to a comprehensive dam safety inspection program since 1971, including regular dam safety inspections by engineers who are employed by Southern Company Services and who hold current Professional Engineer licenses in Alabama.

- 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).

Alabama Power's review provides no basis to indicate a spill or unpermitted release at the Gadsden pond within the last ten years.

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

Alabama Power Company is the owner and operator of this facility.

CONFIDENTIAL BUSINESS INFORMATION NOT SUBJECT TO DISCLOSURE UNDER THE FREEDOM OF INFORMATION ACT

CONFIDENTIAL APPENDIX

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

> GADSDEN ELECTRIC GENERATING PLANT 1000 Goodyear Ave. Gadsden, Alabama 35903

> > March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama Power's responses are provided in plain text. This confidential appendix provides only those questions and responses for which the response includes information subject to a claim of confidentiality.

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. 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?

The most recent dam safety inspection of the Gadsden ash pond dam was conducted on November 19, 2008. The inspection was conducted by two engineers from Alabama Power's affiliate, Southern Company Services. The inspectors are both licensed Professional Engineers in Alabama, have multiple years of experience, and specialize in dam safety. The dam safety inspection of the Gadsden ash pond dam is currently scheduled on an annual frequency. An inspection of the ash pond dam will be conducted no later than November 2009 at a date to be determined.

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One minor repair was recommended as a result of the most recent dam safety inspection of the Gadsden ash pond dam. It involved the placement of riprap on the upstream slope of the dam to protect against wave induced erosion. This was not deemed to be a critical condition and it was noted that armoring could be done in stages over a period of time to allow the most efficient utilization of resources. Other recommendations can be characterized as maintenance or monitoring activities, and they required no action with respect to the structural integrity or continued safe operation of the dam. The actions taken in response to the recommendations require no engineering or dam safety credentials and have been or will be addressed by facility personnel in the course of their normal duties.

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.

Alabama Power has identified no basis to indicate a federal or state agency has inspected or evaluated the ash pond at Gadsden for purposes of the structural integrity of that structure.

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.

See Question 6. In addition, Alabama Power's dam safety program has not identified any issues or conditions that would affect the continued safe operation of the facility.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material 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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Gadsden Ash Pond		
Approximate acres	68	
Approximate storage capacity (cubic yards)*	1,214,471	
Approximate volume stored (cubic yards)*	1,067,968	
Approximate date measurement taken	2007	
Approximate maximum height	16 feet	

* Cubic yard figures are estimates derived by qualified personnel from available information.

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

MILLER ELECTRIC GENERATING PLANT 4250 Porter Road Quinton, Alabama 35130

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama 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 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 Miller ash pond dam is listed in the National Inventory of Dams ("NID") database (Record No. 1101) and has been assigned a downstream hazard potential rating of Low Hazard (L). The NID listing for the Miller ash pond dam indicates the source agency is "AL." Alabama Power's review provides no basis to indicate which state agency assigned this rating or the basis for the rating. No federal or state agency regulates the Miller ash pond dam structure relative to the NID.

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

Available information indicates the Miller ash pond dam went into service in 1978. The ash pond structure has not been expanded.

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).

Fly ash, bottom ash, boiler slag, flue gas emission control residuals, and other (regulatory permitted low volume wastes, i.e., waste that is not hazardous for purposes of RCRA Subtitle C and is otherwise permitted under applicable regulations such as 40 C.F.R. § 423.11).

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?

Alabama Power's review indicates that at least two professional engineers were part of the design and construction team associated with the original design and construction of the Miller ash pond dam in the 1970's. In addition, the structure is supported by an operational history of more than 30 years. The dam has been subject to a comprehensive dam safety inspection program since 1979, including regular dam safety inspections by engineers who are employed by Southern Company Services and who hold current Professional Engineer licenses in Alabama.

- 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).

Alabama Power's review provides no basis to indicate a spill or unpermitted release at the Miller ash pond within the last ten years.

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

Alabama Power Company is the sole operator of this facility and owns approximately 92 percent. PowerSouth (formerly AEC) owns the remaining interest.

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CONFIDENTIAL APPENDIX

ALABAMA POWER COMPANY RESPONSES TO EPA QUESTIONS REGARDING MANAGEMENT OF COAL COMBUSTION BY-PRODUCTS

MILLER ELECTRIC GENERATING PLANT 4250 Porter Road Quinton, Alabama 35130

March 26, 2009

<u>Note:</u> The text of EPA's questions is included below in *italics*. Alabama Power's responses are provided in plain text. This confidential appendix provides only those questions and responses for which the response includes information subject to a claim of confidentiality.

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. 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?

The most recent dam safety inspection of the Miller ash pond dam was conducted on November 13, 2008. The inspection was conducted by two engineers from Alabama Power's affiliate, Southern Company Services. The inspectors are both licensed Professional Engineers in Alabama, have multiple years of experience, and specialize in dam safety. The dam safety inspection of the Miller ash pond dam is currently scheduled on an annual frequency. An inspection of the ash pond dam will be conducted no later than November 2009 at a date to be determined.

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The recommendations made as a result of the most recent dam safety inspection of the Miller ash pond dam can all be characterized as maintenance or monitoring activities and required no action with respect to the structural integrity or continued safe operation of the dam. The actions taken in response to the recommendations require no engineering or dam safety credentials and have been or will be addressed by facility personnel in the course of their normal duties.

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.

Alabama Power has identified no basis to indicate a federal or state agency has inspected or evaluated the ash pond at Miller for purposes of the structural integrity of that structure.

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.

See Question 6. In addition, Alabama Power's dam safety program has not identified any issues or conditions that would affect the continued safe operation of the facility.

8. What is the surface area (acres) and total storage capacity of each of the management units? What is the volume of material 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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Miller Ash Pond		
Approximate acres	341	
Approximate storage capacity (cubic yards)*	21,951,362	
Approximate volume stored (cubic yards)*	2,332,450	
Approximate date measurement taken	2009	
Approximate maximum height	170 feet	

* Cubic yard figures are estimates derived by qualified personnel from available information.