

US EPA ARCHIVE DOCUMENT

Comments:

EPA:

Cover Page – “Prepared for” should read:

U.S. Environmental Protection Agency
Office of Solid Waste and Emergency Response
Office of Resource Conservation and Recovery
1200 Pennsylvania Ave, NW
MC: 5304P
Washington, DC 20460

Page 1 – change “Request” to “Response”

Page 13, Section 2.10 – the monitoring instrumentation described here does not seem to correlate with the recommendations or Instrumentation Section 3.5.1, B should perhaps read B’? Verify.

Page 28 – Make the difference between ash pond B and B’ more clear

State: None

Company: See letter dated September 21, 2010

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September 21, 2010

CERTIFIED MAIL AND ELECTRONIC MAIL

Mr. Stephen Hoffman Office of Resource
Conservation and Recovery (5304P)
U. S. Environmental Protection Agency
2733 South Crystal Drive Fifth Floor
Arlington, VA 22202

Re: Comments on Draft "Report of Geotechnical Investigation Dam Safety Assessment of Coal Combustion Surface Impoundments, Georgia Power Plant Yates"

Dear Mr. Hoffman:

On July 6, 2010, the U. S. Environmental Protection Agency ("EPA") provided to Georgia Power a draft report regarding certain facilities for the management of coal combustion byproducts at Georgia Power Plant Yates ("Draft Report"). The Draft Report was prepared by AMEC Earth & Environmental, Inc. ("AMEC") and was dated June 2010. Georgia Power appreciates the opportunity to provide comments on the Draft Report before it is finalized. This letter and attachments provide Georgia Power's comments on that Draft Report.

Management Unit Condition and Potential Hazard Rating

We are pleased that AMEC's on-site inspection of the management units were satisfactory and that AMEC recognized that Georgia Power's inspection practices for the management units at Plant Yates were adequate. We are pleased that the report concludes that the dike for the gypsum solid waste landfill at Plant Yates is in "Satisfactory" condition, which is the most favorable category. Georgia Power, however, does not agree with the "fair" ratings for Ash Pond 3 and A and the "poor" ratings for Ash Ponds 1, 2 and B'. Georgia Power recognizes that the "poor" ratings are not a result of the physical, on-site inspections of the dams but appear to be the result of information requested in the Draft Report. The information requested appears to fall into two basic categories: (1) slope stability analyses and (2) hydrology/hydraulic studies. With this submittal we have provided the information requested for these two categories. This information supports a rating of "Satisfactory" for the above referenced coal combustion byproduct (CCB) management units at Plant Yates.

While Georgia Power has provided the additional information requested, it is important to understand that Georgia Power did provide slope stability information for the management units before the Draft Report was issued. As discussed in the attached comments, there are no regulatory criteria specifying the storm that these ponds should be able to safely handle or discharge or minimum freeboard for the Plant Yates ash ponds, so these studies were not provided before the Draft Report was issued.

US EPA ARCHIVE DOCUMENT

It is important to note that guidance such as Mine Safety and Health Administration (MSHA) for mine tailing ponds is not applicable to the Plant Yates ash ponds. The preface, on page iii, of the MSHA Engineering and Design Manual, Coal Refuse Disposal Facilities (May 2009), states as follows (emphasis added):

The guidance presented in this Manual represents information, methods and procedures that are recommended for consideration by designers, coal operators, and regulators. The guidance presented in this Manual is not regulation and cannot be enforced as such. It is not intended to preclude the application of other credible methods and procedures or the use of other and new information that will result in a safe and reliable coal refuse disposal facility. It is the responsibility of the designer to investigate the requirements of the project, recognize the unique and critical aspects of the site conditions, and prepare designs that reflect actual site conditions, features, loadings and constraints.

MSHA, therefore, is only guidance. In addition, based on our review of the other final dam CCB inspection reports posted on EPA's website, it appears that MSHA guidance was not used to determine the final rating of a CCB dam.

Hydrology/Hydraulic Studies

In AMEC's Draft Report, Georgia Power was requested to apply an appropriate design storm rainfall for ash ponds 1, 2, 3, B'. It was recommended that the appropriate design storm rainfall be applied to the impoundments watershed to assure that the dam can safely store or control the design flow (Draft Report, page 28-30). Plant Yates ash ponds are not classified as Category I under the Georgia EPD Safe Dams Program. Consequently, there are no regulatory requirements for any specific storm that these ponds should be able to safely handle or discharge. In the absence of a regulatory requirement, we view the requested study as a recommendation to Georgia Power. We are providing the analyses to show what storm event flow the impoundment can safely handle or discharge, which are summarized below.

Ash Pond 1 – the study demonstrates a 100-year storm can be stored with 2.86 feet of freeboard. This number is conservative because it does not include pond discharge due to routing through the emergency spillway. Based on these calculations, it is concluded that the capacity of the pond is adequate.

Ash Pond A – No hydrology/hydraulic study was requested for Ash Pond A as it is inactive. Georgia Power will continue to maintain this unit to provide erosion and vegetation control, as recommended in the Draft Report.

Ash Pond B' Middle Pond – the study demonstrates that Ash Pond B' Middle Pond can fully contain the 100-year storm with no freeboard. Georgia Power has determined that the 100-year storm could be stored with 1 foot of freeboard by lowering the riser pipe one foot, maintaining the pond water level to at least 3 feet below the top of the dike, and maintaining ash in the pond to below the desired water level. Georgia Power is making these operational changes.

Ash Pond B' South Pond – the study demonstrates that Ash Pond B' South Pond can fully contain the 100-year storm with 0.74 feet of freeboard. Georgia Power has determined that the 100-year storm could be contained with 1 foot of freeboard by maintaining the pond water level to at least 2 feet below the top of dike and maintaining the ash below the pond water level. Georgia Power is making these operational changes.

Upper Gypsum Solid Waste Landfill “Wet Stack” Existing Conditions – the study demonstrates that the required volume of 0.97 acre-feet for the 100-year storm can be stored at 2.12 feet below the dike crest. Based on these calculations, it is concluded that the capacity of the Upper Gypsum Wet Stack is adequate.

Lower Gypsum Solid Waste Landfill “Wet Stack” Existing Conditions - the study demonstrates that the required volume of 0.42 acre-feet for the 100-year storm can be stored at 2.34 feet below the dike crest. Based on these calculations, it is concluded that the capacity of the Lower Gypsum Wet Stack is adequate.

Gypsum Surge Pond Existing Conditions - the study demonstrates that the Gypsum Surge Pond has 1.95 ac-ft of storage between elevation 767 and 769. The 100-year storm requires 3.60 ac-ft of storage. Georgia Power has determined to accommodate this amount of runoff, the surge pond water elevation should be lowered to 765.10 or lower. Georgia Power is making these operational changes.

Gypsum Surge Pond after Final Gypsum Stackout - After final stackout, the upper and lower gypsum wet stacks will no longer exist. These will be gypsum dry stacks, covered by a clay blanket and grassed according to the solid waste landfill permit closure plan. Storm water runoff from this area will drain to the remaining surge pond. To maintain one foot of freeboard in the surge pond under this condition, the surge pond will be operated at elevation 765.86 or lower under normal conditions.

Ash Pond 2 & 3 – Ash Pond 3 drains to Ash Pond 2 and the study reflects that condition. Ash Pond 3 can handle a 25-year rainfall with 0.2 foot of freeboard, and the dike overtops for larger return period storms. Georgia Power has determined that by lowering the riser approximately 1 – 1.5 foot and widening the emergency spillway bottom to 15’ from a “V” shaped channel to a trapezoid channel. Ash Pond 3 will contain a 100-year storm with 1 foot of freeboard. Georgia Power is implementing these changes. Ash Pond 2 can handle a 300-year return period rainfall with 1.1 feet of freeboard.

Given that the requested hydrology/hydraulic studies either (1) assure that the dams can safely store or control the referenced storm flow or (2) that Georgia Power is implementing the referenced operational modifications, we are confident that the ratings for all Plant Yates ash ponds will be “Satisfactory” in the final report. Additionally we are requesting that the ratings for Ash Ponds 1, 2, 3, A and B’ in the Draft Report be changed to “Satisfactory”.

Stability Analyses

Georgia Power provided the necessary slope stability analyses for Ash Ponds 1, 2, 3, A and B’ to warrant a “satisfactory” rating for those ash ponds. The additional slope stability analyses requested are analyses that use a variety of search methods to assess minimum factors of safety. While the request to use different methodologies for a slope stability analysis may be a recommendation for the utility, such a request is not a missing “critical report” that warrants a “poor” rating for Ash Pond 1, 2 and B’ or “fair” rating for Ash Ponds 3 and A. Georgia Power has submitted a stability report using an acceptable and industry-wide recognized methodology which shows that the minimum factors of safety for the dikes are acceptable. Georgia Power is providing the additional analyses and the results are summarized below.

All the CCB impoundments at Plant Yates are classified as Category II structures. The Georgia Rules for Dam Safety do not identify specific minimum factors of safety for Category II structures as, according to Chapter 391-3-8-.04, these are exempt from the rules. However, Chapter 391-3-8-.09,

Standards for the Design and Evaluation of Dams, states "All dams must be stable under all conditions of construction and/or operation of the impoundment". For Category II structures, the minimum criteria (factors of safety) stipulated in Chapter 391-3-8-.09 are adopted. The Georgia Rules for Dam Safety, however, do not address the factor of safety for the maximum surcharge load case (which is discussed in the hydrology section of the slope stability analyses). In this instance, the criterion (minimum factor of safety of 1.4) stipulated in the US Army Corps of Engineers Manual, EM 1110-2-1902,2003, was used.

The slope stability analyses indicated all ash pond dikes exceed the recommended minimum factor of safety. The results for Ash Pond 2 are discussed in detail in the slope stability report.

Given that all of the slope stability analyses resulted in acceptable minimum factors of safety for existing dams or the engineering evaluation determined no significant dike integrity issues, we are confident that the rating for Ash Ponds 1, 2, 3, A and B' will be "Satisfactory" in the final report. Additionally, we are requesting that the rating for Ash Ponds 1, 2, 3, A and B' in the Draft Report be changed to "Satisfactory".

Monitoring, Instrumentation and Inspection Recommendations

Georgia Power and Southern Company will continue the piezometer monitoring and dike inspection program for the Plant Yates. An additional piezometer has been installed to monitor phreatic surface in the dam for Ash Pond 1. As described in our attached comments on Section 3.5.1 of the Draft Report, data and clarification on existing piezometers for Ash Pond 3 are provided. For Ash Ponds 2, A and B', which have relatively new piezometers, we are conducting frequent readings on those piezometers to establish baseline phreatic levels. We will continue routine maintenance of vegetation and prevention of erosion for all management units. We will also continue to include in our routine inspections the existing scour prevention measures on the downstream slope of Ash Pond 2 and on the adjacent riverbank.

Thank you again for this opportunity to comment. Please continue to direct correspondence to my attention.

Sincerely,



Charles H. Huling

CHH/
Attachments

PLANT YATES

PAGE	SECTION	CURRENT STATEMENT READS	RECOMMENDED CHANGE	ADDITIONAL NOTES
Cover Page		<i>Report of Geotechnical Investigation</i>	Dam Safety Assessment of Coal Combustion Surface Impoundments	This Report is an assessment, not a Report of Geotechnical Investigations.
1	1.1	<i>"Rachel Mudd, P.E., Geotechnical Engineer, Plant Yates"</i>	Rachel Mudd, P.E., Geotechnical Engineer, Earth Sciences and Environmental Engineering, Southern Company	Rachel Mudd, P.E. is a Geotechnical Engineer for Earth Sciences and Environmental Engineering of Southern Company
1	1.2	<i>A waste pond located at the Gypsum Solid Waste Facility contains gypsum slurry and ash mix</i>	The gypsum pond, which is a permitted, private industrial solid waste disposal facility, contains a mix of gypsum slurry and ash.	
3	1.2.1			Please add a sentence explaining that Plant Yates's gypsum pond is a permitted, private industrial solid waste disposal facility.
3	1.3	<i>"Plant Yates is located approximately 40 miles southwest of central Atlanta and is near Interstate 85."</i>	Plant Yates is located approximately 40 miles southwest of central Atlanta and is 11.6 miles from Interstate 85.	
3	1.3	<i>"The distance between the closest point of the ash ponds and the river ranges between less than 10 feet in the case of Ash Pond 2..."</i>	The edge of the riverbank to the toe of the Ash Pond 2 dike is 25 feet. The edge of the riverbank to the crest of the Ash Pond 2 dike is 113 horizontal feet.	
3	1.4	<i>"...Southern Company (Georgia Power's parent company) engineers who are responsible for design and evaluation of the Plant Yates facility operational processes."</i>	...Southern Company (Georgia Power's parent company) engineers who are responsible for design, evaluation, and inspection of the Plant Yates' coal combustion byproduct surface impoundments.	
4	1.4	<i>First Bullet - Each of the eight ash ponds at Plant Yates contain fly ash, bottom ash, boiler slag, pyrites, and low volume waste as defined under 40 CFR 423.11. Gypsum slurry with ash mix is contained in the Gypsum Pond. Flue gas emission control residuals are contained solely in Ash Pond 2</i>	Each of the eight ash ponds at Plant Yates contain fly ash, bottom ash, boiler slag, pyrites and low volume waste as defined under 40 CFR 423.11. Gypsum slurry (with ash mix) is contained in the Gypsum Pond. Ash Pond 2 receives blowdown from the FGD process.	
4	1.4	<i>Fourth Bullet - Inspection of Ash Ponds 1,2,3, and the Gypsum Pond is currently performed by a professional engineer.</i>	Inspections of Ash Ponds 1,2,3 and the Gypsum Pond are conducted yearly or bi-yearly by a licensed engineer, and weekly by plant personnel.	
5	1.4.2	<i>"This pond is currently used as a dewatering facility..."</i>	This pond is currently used as a sedimentation area...	Ash Pond 2 is not used as a dewatering facility. The upper portion of the pond is used as a settling basin for the ash. The lower portion is a pool for recycling process water back to the plant and for final permitted discharge. Ash is dredged from Ash Pond 2 to the B' Ponds.
5	1.4.3	<i>"Georgia power"</i>	Georgia Power should be capitalized.	
5	1.4.3	<i>"[Ash Pond 3] is currently full, inactive and no longer receives liquid borne material; however the pond does act as a sediment control for flow from Ash Pond B."</i>	(Ash Pond 3) is currently full, inactive, and no longer receives sluiced material; however the pond does receive process water discharge from Ash Pond B' and stormwater runoff.	
5	1.4.4	<i>"This ash pond is currently inactive, covered, no longer receives liquid-borne wastes. The dam is <u>breached</u> so it cannot contain water."</i>	This ash pond is currently inactive, covered, no longer receives liquid-borne wastes.	Ash Pond A dike is not breached. Properly stated, a channel exists on the left abutment to discharge storm water run-off into the Ash Pond B area. Breached does not accurately depict the state of the dam. No pictures of this feature are included in the Appendix.
6	1.4.8	<i>The gypsum solid waste facility was commissioned in 1992.</i>	The gypsum solid waste facility was commissioned in 1992 as a permitted, private industrial solid waste disposal facility.	
6	1.6	<i>In general, piedmont soil is weathered from partially to fully metamorphosed bedrock of the type described above.</i>	In general, Piedmont soil is weathered from partially to fully metamorphosed bedrock. Within the Southern Piedmont Physiographic province, which lies between the Blue Ridge Mountains and the Upper Coastal Plain, the metamorphic rocks include chlorite schists and quartzofeldspathic gneisses. At Plant Yates the parent rock consists of biotite gneiss with occasional amphibolite and quartzite.	
9	2.2.1	<i>photos 1-13 and 1-16 or 1-17 and 1-18</i>		There are no photos 1-13 and 1-16 or 1-17 and 1-18 in Appendix B
9	2.2.1	<i>"...and according to site visit operations and design..."</i>	...and according to site operations and design...	Delete the word "visit".
9	2.2.2	<i>The outlet for the coal pile runoff (photo 1-2) is a 48-inch diameter corrugated metal pip (CMP).</i>	The outlet for the coal pile runoff (photo 1-2) is a 48-inch diameter corrugated metal pipe (CMP).	

9	2.3.1	The downstream embankment slope has two benches and three slopes.	The downstream embankment slope has one bench and two slopes.	the downstream slope of AP2 actually has one bench and 2 slope. Please refer to the updated (Rev. 1) slope stability analysis for the accurate description.
9	2.3.1	A depression, possibly caused by drainage, was observed at the toe of the upper slope at the left abutment.	A depression, possibly caused by drainage, was observed at the toe of the upper slope at the right abutment.	
10	2.3.1	The upper bench is generally....	The berm/ bench is generally....	
10	2.3.1	At the toe of the middle slope near the right abutment, a wet area was observed (photo 2-9).	At the toe of the middle slope near the left abutment, a wet area was observed (photo 2-9).	
10	2.3.1	On the lower bench/slope at the left abutment, a silted-in drainage pipe outlet was observed (photo 2-8).	At the toe of the right abutment, a silted-in drainage pipe outlet was observed (photo 2-8).	The pipe outlet is located near the river bank, at the right abutment.
10	2.3.1	The lower slope extends onto the Chattahoochee River (photo 2-6 and 2-9) and is armored...	The bank of the Chattahoochee River (photo 2-6 and 2-9), located 25 feet downstream of the toe of Ash Pond 2, is armored...	
10	2.3.2	The spillway entrance includes a concrete control structure and rip-rap on the upstream slope (photo 2-1).	The spillway entrance includes rip-rap and a concrete apron (photo 2-1).	
10	2.4.1	Small minor woody vegetation, about 1-inch in diameter, was observed at the base of the downstream slope (photo 3-7).	Small minor woody vegetation, about 1-inch in diameter, was observed at the base of the upstream slope (photo 3-7).	
11	2.4.2	The emergency spillway for Ash Pond 3 is located at the right abutment."	The emergency spillway for Ash Pond 3 is located at the left abutment."	
11	2.5.1	The right end of the embankment is breached and the pond cannot retain water.	The left abutment of the embankment has a discharge channel and the dam cannot retain water.	
11	2.5.2	Ash Pond A is breached at the right abutment by an open channel ditch. Severe erosion of the ditch was noted in the embankment area and downstream (photo A-3). Due to this open-channel breach at the right abutment, Ash Pond A was considered to not have any freeboard. There was not visible outlet control structure	An open channel ditch is located on the left abutment. Severe erosion of the ditch was noted in and downstream of the embankment area (photo A-3) during the inspection. The erosion was repaired within a week of the inspection. Due to the presence of this open channel and the fact that Ash Pond A is full and covered with a soil cover, it does not have any freeboard. An outlet control structure was not visible.	The photo of the repair is shown below.
12	2.7.2	Ash Pond C is full, incorporated into the R6 Landfill permit and does not have an outlet control structure.	Ash Pond C is full, and is incorporated into the R6 Landfill permit footprint, and does not have an outlet control structure.	
12	2.8.1	The downstream slope toward Ash Pond B is covered with grass and separated by a middle bench (photo B'-5).	The downstream slope of Ash Pond B' is covered with grass with a mid-slope bench (photo B'-5).	
12	2.9.1	The sediment pond is lined with HDPE.	The sediment pond is lined with HDPE and clay.	
13	2.10	A total of ten new piezometers were installed at Ash Ponds 2, A and B in March of 2010 to determine piezometric levels within and below the embankments for the 2010 Stability analyses (YAT-API-44)	A total of ten new piezometers were installed at Ash Ponds 2, A and B' in March of 2010 to determine piezometric levels within and below the embankments for the 2010 Stability analyses (YAT-API-44)	Piezometers were actually installed in Ash Ponds 2, A and B'.
14	3.2	No hydrologic information was provided for current conditions at the facility. Historic hydrologic information was provided for Ash Pond 2,3, and Ash Pond B'	Hydrologic information was not provided for current conditions at the facility as of the writing of the draft report. However, this analyses has been submitted as an attachment to these comments. Historic hydrologic information was provided for Ash Pond 2,3, and Ash Pond B'.	
14	3.2.1	Review of provided documentation did not locate any reference to construction activities or implementation of these proposed hydraulic and hydrologic modifications regarding Ash Ponds 2 and 3.	It was noted during the inspection that, since the dry ash stacking operation has not been undertaken, the proposed modifications discussed above had not been implemented.	
16	3.3.1			The discussion of the 2010 Slope Stability Analyses presented in this section should be revised, as appropriate, based on the revised Slope Stability Analysis submitted with these comments.
17	3.3.1	(Third bullet) Triaxial testing, reported by SCECS to be based on procedures outlined in ASTM D 47675...	(Third bullet) Triaxial testing, reported by SCECS to be based on procedures outlined in ASTM D 4767...	
18	3.3.1, Table 4	Triaxial Tests	Triaxial Tests	Ash Pond 3 column should show that data was available in 2000 stability report. Also, Table will need to be updated/corrected with data from Rev. 1 of the stability analysis submitted with these comments.
18	3.3.1, Table 4	(Note 1) Specific apparent maximum cross section locations were not provided in the 2010 analyses or any other documentation.		Specific cross-sections are shown in the revised slope stability report submitted with these comments.
21	3.3.1	SCECS notes that the factor of safety value of 1.1 for steady state condition that is provided by the USCOE in their document..."	SCECS notes that the factor of safety value of 1.5 for steady state condition that is provided by the USCOE in their document..."	

21	3.3.1	AMEC was told that weekly inspections are undertaken, but was not provided with any documentation in support of these inspections."	Plant personnel inspect the ponds and embankments weekly. They are documented and provided to SCG Hydro Services.	AMEC did not request the plant conducted weekly inspection reports at the time of the inspection.
22	3.3.2			These historical reports were provided to show stability analysis was taken into account in initial design. These reports are out-dated in their methods and technology, as well as the current condition of the structures. Recent investigations (see revised 2010 Slope Stability 2010 Report) have replaced these evaluations and they should only be evaluated for historical significance, not modern methods and techniques.
25	3.5	However, documentation was not provided to note whether the standpipe had been installed as suggested.	The standpipe has been installed and is shown in the center of photograph 1-4.	
25	3.5.1	Documentation was not provided clarifying whether the proposed spillway was created; however, ..."	No work associated with the raising of AP3 has been performed. The project was cancelled.	
26	3.5.1	Results from these piezometers do not appear on the submitted reports.	Results from these piezometers do not appear on the submitted reports. However, piezometer data has been provided by Georgia Power.	Piezometer data is attached below. Also, please refer to the revised stability analysis report submitted with these comments for a clarification of the existing piezometers for Ash Pond 3.
27	4	Definitions of Fair, Poor, and Unsatisfactory	Please make these definitions consistent with EPA's definition of FAIR, POOR and UNSATISFACTORY in EPA's statement of work (Work Assignment Number 0-381).	
27	4.1	Ash Pond 1 : Poor	Ash Pond 1 : Satisfactory	Since Georgia Power is submitting with these comments the requested studies or investigations addressing the issues for Ash Pond 1 discussed in Section 4.2, Georgia Power respectfully requests this rating be revised as indicated.
28	4.1	Ash Pond 2 : Poor	Ash Pond 2 : Satisfactory	Since Georgia Power is submitting with these comments the requested studies or investigations addressing the issues for Ash Pond 2 discussed in Section 4.3, Georgia Power respectfully requests this rating be revised as indicated.
27	4.1	Ash Pond 3 : Fair	Ash Pond 3 : Satisfactory	Since Georgia Power is submitting with these comments the requested studies or investigations addressing the issues for Ash Pond 3 discussed in Section 4.4, Georgia Power respectfully requests this rating be revised as indicated.
28	4.1	Ash Pond A : Fair	Ash Pond A : Satisfactory	Since Georgia Power is submitting with these comments the requested studies or investigations addressing the issues for Ash Pond A discussed in Section 4.6, Georgia Power respectfully requests this rating be revised as indicated.
28	4.1	Ash Pond B : Poor	Ash Pond B : Satisfactory	Since Georgia Power is submitting with these comments the requested studies or investigations addressing the issues for Ash Pond B' discussed in Section 4.5, Georgia Power respectfully requests this rating be revised as indicated.
28	4.1	Gypsum Pond	Gypsum Ponds	
28	4.2.1	The appropriate design storm rainfall should be applied....	The appropriate storm rainfall was applied....	A hydrologic study and revised stability analysis evaluating the capacity and dike safety is submitted with these comments.
28	4.2.2	It appears that the stability analyses...	The stability analyses	Please avoid using the word "appears" for results which have been submitted to AMEC.
28	4.2.2	Geotechnical and Stability Recommendations (Ash Pond 1)	Please delete/revise this section.	This additional information and analyses are being provided with these comments. Please delete these sentences related to specific types of analyses AMEC is requesting, since they will no longer applicable after submittal of this information.

28	4.2.3	<i>There is currently no instrumentation for this structure. However, because the structure is still in use as a sediment pond, it would be prudent to install at least one piezometer to monitor the phreatic surface of the dam.</i>	Please delete this statement since instrumentation has been installed.	An additional piezometer has been installed at the section of the existing piezometer discussed in Section 2.2.1 and shown in AMEC photo 1-4. Reference the revised 2010 slope stability analysis submitted with these comments.
29	4.2.4	<i>This pond has, historically, not had routinely documented inspections. Because this pond is used as a sediment pond and is capable of impounding water, it would be prudent for this pond to have documented formal inspections on a regular basis.</i>	Ash Pond 1 has formal documented inspections that take place on a semi-annual basis. Ash Pond 1 inspections began in 2007.	
29	4.3.1	<i>The appropriate design storm rainfall should be applied....</i>	The appropriate storm rainfall was applied....	A hydrologic study and revised stability analysis evaluating the capacity and dike safety is submitted with these comments.
29	4.3.2	<i>Geotechnical and Stability Recommendations (Ash Pond 2)</i>	Please delete/revise this section.	This additional information and analyses are being provided with these comments. Please delete these sentences related to specific types of analyses AMEC is requesting, since they will no longer be applicable after submittal of this information.
29	4.3.2	<i>Discussion on flood condition of Ash Pond 2</i>	Please revise this discussion.	Please refer to the revised 2010 slope stability analysis for an accurate description of the riverbank and downstream toe condition. The riverbank doesn't support the toe of the dam and is 25 feet downstream. The riverbank and lower slope of Ash Pond 2 are armored and protected from scouring/erosion as discussed and photographed during the inspection.
30	4.4.1	<i>Ash pond 3 is currently used for processing of CCW.</i>	Ash pond 3 does not receive CCW but is used as a settling basin for the discharge from the B' ponds.	This is described in Section 1.4.3
30	4.4.1	<i>AMEC recommends that the design storm be reevaluated in light of current standards and the appropriate design storm rainfall should be applied</i>	The appropriate storm rainfall was applied....	A hydrologic study and revised stability analysis evaluating the capacity and dike safety is submitted with these comments.
30	4.4.3	<i>AMEC requests that new PZ(s) be installed and monitored for AP3.</i>	Please delete this sentence. Currently, six piezometers are being monitored at Ash Pond 3.	Reference comments on Section 3.5.1.
30	4.4.2	<i>Geotechnical and Stability Recommendations (Ash Pond 3)</i>	Please delete/revise this section.	This additional information and analyses are being provided with these comments. Please delete these sentences related to specific types of analyses AMEC is requesting, since they will no longer be applicable after submittal of this information.
30	4.5.1	<i>AMEC recommends that the design storm be re-evaluated in light of current standards and the appropriate design storm rainfall should be applied</i>	The appropriate storm rainfall was applied....	A hydrologic study and revised stability analysis evaluating the capacity and dike safety is submitted with these comments.
31	4.5.2	<i>Geotechnical and Stability Recommendations (Ash Pond B')</i>	Please delete/revise this section.	This additional information and analyses are being provided with these comments. Please delete these sentences related to specific types of analyses AMEC is requesting, since they will no longer be applicable after submittal of this information.
31	4.6.1	<i>Ash Pond A is currently inactive and the dam appears to be breached.</i>	This ash pond is currently inactive, covered, no longer receives liquid-borne wastes.	The presence of the discharge channel on the left abutment is not a breach of the dam.
31	4.6.2	<i>Geotechnical and Stability Recommendations (Ash Pond A)</i>	Please delete/revise this section.	This additional information and analyses are being provided with these comments. Please delete these sentences related to specific types of analyses AMEC is requesting, since they will no longer be applicable after submittal of this information.
	FIGURES		The figures provided by Georgia Power to AMEC should be treated as CBI and redacted. Please see separate submittal to the EPA on CBI matters, for this report. Also, for all figures and documents that were developed by Georgia Power or Southern Company Services, Georgia Power or Southern Company Services needs to be referenced on that figure or document as the author.	
Appendix A	CHECKLISTS	<i>Item 23. Water against downstream toe? (Ash Pond 2)</i>	Please change response to "No". There is no water on the toe. The river bank is not the toe of the dam, and is 25' from the lower dike.	