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EXHIBIT "B"

EDITED VERSION

DOCUMENT NUMBER DATE

08741 DEC-2 =

FPSC-COMMISSION CLERK

Document Request No. 1

2021 MAY 21 AM 10:01

08741 DEC-2 =

FPSC-COMMISSION CLERK

**Office of Auditing and Performance Analysis
Review of Coal Ash Storage and Disposal Processes**

DOCUMENT REQUEST 1

Georgia Power responses to Questions 10, 11, and 13:

10. Please provide a copy of the company's emergency management, disaster recovery, and contingency plans which outline all of the responsibilities and actions to be taken by the company to properly address coal ash storage and disposal problems that could occur.

[REDACTED]

11. Please provide copies of any studies, audits, or analyses prepared by the company, or a consultant, on the company's coal ash storage and disposal management processes.

[REDACTED]

DOCUMENT NUMBER: 08741 DEC-2 =
FPSC-COMMISSION OF FERRIS

[REDACTED]

13. Please provide the following information for 2008 through 2010:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Document Request No. 2

DO NOT DISCLOSE

Confidential Business Information

Not Subject to Disclosure under Freedom of Information Act

DOCUMENT REQUEST 2

With the exception of attorney-client privileged information and documents, Georgia Power responds to the Florida Public Service Commission's questions with the following Confidential Business Information. This response supplements Georgia Power's separate response to Questions 1-7 and 10.

8. Please supplement your original response to DR-1.10 to include more details concerning the emergency plans in place that specifically address coal combustion residual storage and disposal problems that could occur. Also, please indicate if such plans are in accordance with OSHA or other applicable industry standards.

[REDACTED]

9. Please supplement your original response to DR-1.11 and explain if any internal audits have been conducted and, if so, provide the results of such audits.

[REDACTED]

[REDACTED]

[REDACTED]

Attachment A

GEN-10003, Rev. 0

APPROVAL:

TITLE,
Southern Company
Generation


SIGNATURE 6-29-09

Safety Procedure for Dams and Dikes

Confidential Business Information

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Confidential Business Information

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**Attachment A
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Attachment B
Part 1 of 6

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**Attachment B
Part 1 of 6 Pages 1-10 (ALL)**

Attachment B
Part 2 of 6

Southern Company Generation
Hydro Services
Bin 10193
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7033



October 11, 2010

PLANT SCHERER

Dam Safety Surveillance
2nd Quarter Report
REA No. SH-10900

Mr. D. Morton
Plant Manager
Georgia Power Co.
Plant Scherer

Dear Mr. Morton:

Transmitted herewith is the 2nd Quarter 2010 report for the Dam Safety Surveillance for Plant Scherer. Also included is a review of the current instrumentation data and a copy of the current instrumentation plots.

The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and Detention Pond I was performed on June 29, 2010 by Hugh Armitage of the SCG Hydro Services Group. Mr. Armitage was accompanied by Plant Scherer compliance personnel.

There is 1 new recommendation for the 2nd Quarter Inspection, which has been completed since the inspection. The description and status of recommendations from previous quarterly inspections are described on pages 1 and 2 of the attached report.

Should you have any questions, please contact me at extension 8-506-7033.

Sincerely,

A handwritten signature in cursive script that reads "Joel Galt".

Joel Galt
Hydro Services Supervisor

hha/

Attachments

Confidential Business Information

xc: **Georgia Power Company**
S.A. Bain (w/attachments)
J. D. Grissom (w/attachments)
J. P. Horishny (w/attachments)
R. J. Eubanks (w/attachments)
D. A. Woodward (w/attachments)
H. F. Edmonds (w/attachments)

Southern Company Services

S. W. Connally (w/attachments)
E. B. Allison (w/attachments)
J. F. Crew (w/attachments)
J. L. Galt (w/attachments)
J. E. Whitehead (w/attachments)
G. Martin (w/attachments)

REA No. SH-10900

Hydro Services Correspondence Notebook (w/attachments)

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**Attachment B
Part 2 of 6 Pages 3-26**

Attachment B
Part 3 of 6

Southern Company Generation
Hydro Services
Bin 10193
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7033



October 22, 2010

PLANT SCHERER
Dam Safety Surveillance
3rd Quarter Report
REA No. SH-10900

Mr. D. Morton
Plant Manager
Georgia Power Co.
Plant Scherer

Dear Mr. Morton:

Transmitted herewith is the 3rd Quarter 2010 report for the Dam Safety Surveillance for Plant Scherer. Also included is a review of the current instrumentation data and a copy of the current instrumentation plots.

The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and Detention Pond I was performed on September 14 and 17, 2010 by Hugh Armitage of the SCG Hydro Services Group. Mr. Armitage was accompanied by Plant Scherer compliance personnel.

There is 3 new recommendation for the 3rd Quarter Inspection. A description and status of recommendations from previous quarterly inspections are described on page 1 of the attached report.

Should you have any questions, please contact me at extension 8-506-7033.

Sincerely,

A handwritten signature in black ink that reads "Larry B. Wills".

Larry B. Wills
Hydro Services – Principal Engineer

hha/

Attachments

Confidential Business Information

xc: **Georgia Power Company**
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J. E. Whitehead (w/attachments)
G. Martin (w/attachments)

REA No. SH-10900

Hydro Services Correspondence Notebook (w/attachments)

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**Attachment B
Part 3 of 6 Pages 3-25**

Attachment B
Part 4 of 6

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Hydro Services
Bln 10193
241 Ralph McGill Boulevard NE
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May 19, 2009

PLANT SCHERER
Dam Safety Surveillance
Quarterly Report
REA No. SH-08900

Mr. D. Morton
Plant Manager
Georgia Power Co.
Plant Scherer

Dear Mr. Morton:

Attached is the 1st quarter 2009 report on Dam Safety Surveillance for Plant Scherer. The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and the Recycle Pond was performed on March 3, 2009 by Hugh Armitage of the SCG Hydro Services Group. Mr. H. F. Edmonds, Mr. S. W. Martin and Mr. T.J. McBrearty of Plant Scherer participated in the inspections.

This report includes:

- a) A review of the current instrumentation data;
- b) The *1st Quarter – 2009 Dam Safety Inspection Report* summarizing the field observations and comments made during the March 3, 2009 inspection, and;
- c) A copy of the current instrumentation plots.

The current recommendations from the 1st Quarter Inspection are described on the first page of the attached report. The description and status of recommendations from the previous quarterly inspection are also described on pages 1 and 2 of the attached report.

Should you have any questions, please contact me at extension 8-506-7033.

Sincerely,

A handwritten signature in cursive script that reads "Joel Galt".

Joel Galt
Hydro Services Supervisor

Attachments
/hha

CONFIDENTIAL BUSINESS
INFORMATION

xc: **Georgia Power Company**
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E. B. Allison (w/attachments)
J. E. Whitehead (w/attachments)
B. J. Peterson (w/attachments)
K. M. Friedel (w/ attachments)

REA No. SH-09900
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**Attachment B
Part 4 of 6 Pages 3-27**

Attachment B
Part 5 of 6

Southern Company Generation
Hydro Services
Bin 10193
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Tel 404.506.7033



September 16, 2009

PLANT SCHERER
Dam Safety Surveillance
Quarterly Report
REA No. SH-09900

Mr. D. Morton
Plant Manager
Georgia Power Co.
Plant Scherer

Dear Mr. Morton:

Attached is the 2nd Quarter 2009 report on Dam Safety Surveillance for Plant Scherer. The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and the Recycle Pond was performed on July 29, 2009 by Larry Wills of the SCG Hydro Services Group accompanied by Mr. H. F. Edmonds of Plant Scherer.

This report includes:

- a) A review of the current instrumentation data;
- b) The 2nd Quarter - 2009 Dam Safety Inspection Report summarizing the field observations and comments made during the July 29, 2009 inspection, and;
- c) A copy of the current instrumentation plots.

One note of interest this quarter is that the plots along the south dike of the Ash Pond show a slight rise in some of the piezometer levels for April. This is the time period when the earthquake was reported in the Lake Oconee area.

No new recommendations were made for the 2nd Quarter Inspection. However, the description and status of recommendations from previous quarterly inspections are described on pages 1 and 2 of the attached report.

Should you have any questions, please contact me at extension 8-506-7033.

Sincerely,

A handwritten signature in black ink, appearing to read "Larry B. Wills".

Larry B. Wills
Hydro Services - Principal Engineer

Attachments

**CONFIDENTIAL BUSINESS
INFORMATION**

xc: **Georgia Power Company**
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B. J. Peterson (w/attachments)
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REA No. SH-09900
Hydro Services Correspondence Notebook (w/attachments)

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**Attachment B
Part 5 of 6 Pages 3-26**

Attachment B
Part 6 of 6

Southern Company Generation
Hydro Services
Bin 10193
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7033



December 14, 2009

PLANT SCHERER
Dam Safety Surveillance
Fourth Quarterly Report
REA No. SH-09900

Mr. D. Morton
Plant Manager
Georgia Power Co.
Plant Scherer

Dear Mr. Morton:

Attached is the 4th Quarter 2009 report on Dam Safety Surveillance for Plant Scherer. The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and Detention Pond I was performed on November 18, 2009 by Hugh Armitage of the SCG Hydro Services Group accompanied by Plant Scherer compliance personnel.

This report includes:

- a) A review of the current instrumentation data;
- b) The *4th Quarter - 2009 Dam Safety Inspection Report* summarizing the field observations and comments made during the November 18, 2009 inspection, and;
- c) A copy of the current instrumentation plots.

There are 9 new recommendations for the 4th Quarter Inspection, one of which has been completed since the inspection. The description and status of recommendations from previous quarterly inspections are described on pages 1 and 2 of the attached report.

Should you have any questions, please contact me at extension 8-506-7033.

Sincerely,

A handwritten signature in black ink that reads "Larry B. Wills".

Larry B. Wills
Hydro Services - Principal Engineer

hba/
Attachments

**CONFIDENTIAL BUSINESS
INFORMATION**

xc: **Georgia Power Company**

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D. A. Woodward (w/attachments)
H. F. Edmonds (w/attachments)

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J. E. Whitehead (w/attachments)
B. J. Peterson (w/attachments)
K. Furman (w/ attachments)

REA No. SH-09900

Hydro Services Correspondence Notebook (w/attachments)

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**CONFIDENTIAL BUSINESS
INFORMATION**

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Attachment B
Part 6 of 6 Pages 3-27

**1st Quarter
Surveillance Report**

Southern Company Generation
Hydro Services
Bin 10193
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7033



April 4, 2011

PLANT SCHERER

Dam Safety Surveillance
1st Quarter Report - 2011
REA No. SH-11900

Mr. D. Morton
Plant Manager
Georgia Power
Plant Scherer

Dear Mr. Morton:

Transmitted herewith is the 1st Quarter 2011 report for the Dam Safety Surveillance at Plant Scherer. Also included are a review of the current instrumentation data and a copy of the current instrumentation plots.

The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and Detention Pond I was performed on February 28, 2011 by Hugh Armitage of the SCG Hydro Services Group. Mr. Armitage was accompanied by Plant Scherer compliance personnel.

A summary of the visual observations made during the inspections and a description and status of recommendations from current and previous quarterly inspections are described on page 1 of the attached report. Below is a summary of the 4 new and 8 previous recommendations and one recommendation that involves review of field test data that is pending completion.

Current Recommendations

- **Main Storage Pond** - One localized bare area at RHS of downstream slope adjacent to gravel access road needs to be re-grassed.
- **Main Storage Pond - Spillway- RHS Ditch** - Need to remove brush and debris at discharge end of concrete ditch.
- **Detention (I) Pond - Spillway Approach Channel Dike** - Cut trees and bushes down on sideslopes.
- **Storage Pond - Saddle Dike North Dike** -- All piezometers need to be flushed out for continued good performance.

Previous Recommendations

- **Main Storage Pond** - Clean out weep holes in Main Pond spillway.
- **Main Storage Pond/Saddle Dike** - Need truckload of #89 stone at LHS stockpile and truckload of washed #10 sand and #89 stone at RHS stockpile. Need truckload of washed #10 sand at Saddle Dike stockpile.
- **Main Storage Pond & Saddle Dike - Ash Pond - Retention Pond and Detention (I) Pond** - Ant mounds and rodent holes on downstream side of dike need to be treated/repared.
- **Ash Pond - South Dike** - One localized area at west end of south dike needs re-grassing.

- **Ash Pond and Retention Pond Drain Systems** - Need to resume measurement of drain flows at sumps installed in 2010. This continues to be a critical function of the overall Dam Safety program at Plant Scherer.
- **Ash Pond - North Dike** - Need truckload of #89 stone and truck load of GA DOT Type 3 rip-rap to restore emergency stockpiles.
- **Storage Pond - Saddle Dike North Dike** - Piezometers need to be flushed out for continued good performance.
- **Retention Pond - Downstream Slope** - Ground loss noticed at several weep holes in fabricform. Continued monitoring to be carried out and additional investigation could be carried out to determine extent of ground loss. - **Field investigation has been carried out by specialist consultant. Report pending review by SCG Hydro Services.**

We are available to discuss these recommendations with you or your designees. We are also prepared to supply or assist in procuring any technical support needed. Should you have any questions, please contact Hugh Armitage at extension 8-506-7019.

Sincerely,



Joel Galt
Hydro Services Supervisor

hha/
Attachments

xc: **Georgia Power Company**

S.A. Bain (w/attachments)
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D. A. Woodward (w/attachments)
H. F. Edmonds (w/attachments)

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J. E. Whitehead (w/attachments)
G. Martin (w/attachments)
L. G. Byrnes (w/attachments)
T. Sadler (w/attachments)

REA No. SH-11900

Hydro Services Correspondence Notebook (w/attachments)

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**1st Quarter Surveillance Report
Pages 4-25**

**4th Quarter
Surveillance Report**

Southern Company Generation
Hydro Services
Bin 10193
241 Ralph McGill Boulevard NE
Atlanta, Georgia 30308-3374

Tel 404.506.7033



February 21, 2011

PLANT SCHERER

Dam Safety Surveillance
4th Quarter Report - 2010
REA No. SH-11900

Mr. D. Morton
Plant Manager
Georgia Power
Plant Scherer

Dear Mr. Morton:

Transmitted herewith is the 4th Quarter 2010 report for the Dam Safety Surveillance for Plant Scherer. Also included is a review of the current instrumentation data and a copy of the current instrumentation plots.

The inspection of the Main Storage Pond, Ash Pond, Retention Pond, and Detention Pond I was performed on December 21, 20210 by Hugh Armitage of the SCG Hydro Services Group. Mr. Armitage was accompanied by Plant Scherer compliance personnel.

There are 5 new recommendations for the 4th Quarter Inspection. A description and status of recommendations from previous quarterly inspections are described on page 1 of the attached report. One of the higher priority recommendations involves re-establishing measurement of drain flows at the Ash Pond. During the ash pond drain collection systems initiative in the summer of 2010, many of the drains from the ash pond (and including the retention pond) now drain to collection sumps. The measurement of these drain flows has been a critical part of the overall dam safety program at Plant Scherer for many years. Discussion on the methodology to be used to resume flow measurements needs to be priority this year. Hydro Services will be pleased to assist in this activity.

Should you have any questions, please contact Hugh Armitage at extension 8-506-7019.

Sincerely,

A handwritten signature in black ink that reads "Joel Galt".

Joel Galt
Hydro Services Supervisor

hha/
Attachments

xc:

Georgia Power Company

S.A. Bain (w/attachments)
J. D. Grissom (w/attachments)
J. P. Horishny (w/attachments)
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J. E. Whitehead (w/attachments)
G. Martin (w/attachments)
L. G. Byrnes (w/attachments)

REA No. SH-10900

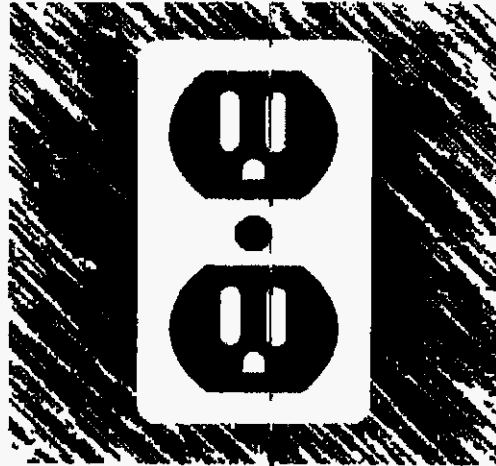
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4th Quarter Surveillance Report
Pages 3-24

CCR Report



**REVIEW OF
COAL COMBUSTION RESIDUAL
STORAGE AND DISPOSAL
PROCESSES
OF THE
FLORIDA ELECTRIC
INDUSTRY**

NOVEMBER 2011

**BY AUTHORITY OF
THE FLORIDA PUBLIC SERVICE COMMISSION
OFFICE OF AUDITING AND PERFORMANCE ANALYSIS**

**REVIEW OF
COAL COMBUSTION RESIDUAL
STORAGE AND DISPOSAL PROCESSES
OF THE
FLORIDA ELECTRIC INDUSTRY**

**VICTOR GORDIANO
ENGINEERING SPECIALIST II
PROJECT MANAGER**

NOVEMBER 2011

**BY AUTHORITY OF
THE STATE OF FLORIDA
PUBLIC SERVICE COMMISSION
OFFICE OF AUDITING AND PERFORMANCE ANALYSIS**

PA-10-10-004

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1.0 EXECUTIVE SUMMARY

1.1 SCOPE AND OBJECTIVES

This review examines how the four major investor-owned electric utilities (IOUs) in Florida are handling coal combustion residual (CCR) storage and disposal. It also addresses how each company is reassessing its practices based on proposed regulations by the U.S. Environmental Protection Agency (EPA). This review was conducted on behalf of the Florida Public Service Commission (FPSC) by the Performance Analysis Section of the Office of Auditing and Performance Analysis. The companies audited included: Tampa Electric Company (TECO), Progress Energy Florida, Inc. (PEF), Gulf Power Company (Gulf), and Florida Power & Light Company (FPL). Specifically, FPSC audit staff focused on the following areas:

- ◆ CCR Management
- ◆ Risk Assessment
- Performance Self-Evaluation

1.2 BACKGROUND AND PERSPECTIVE

Nearly half of the nation's electricity comes from coal-fired generation plants.¹ Future reliance on coal generation may decline sharply as fewer coal plants are being built due to environmental concerns. In Florida, approximately 36 percent of the electricity was generated from coal in 2000. In 2010, 25 percent of Florida's electric generation was from coal and it is forecasted to remain near 25 percent by 2020.²

Coal combustion for electric generation produces four main types of large volume CCRs:

- ◆ Fly ash – Fine particles of silica glass that are removed from the plant exhaust gases by air emission control devices.
- ◆ Bottom ash – Ash particles that are too large to be carried in the flue gases and collect on the furnace walls or fall through open grates to an ash hopper.
- ◆ Boiler slag – Molten bottom ash collected at the base of slag tap and cyclone type furnaces that is quenched with water. It is made up of hard, black, angular particles that have a smooth, glassy appearance.
- ◆ Flue gas desulfurization materials (e.g., gypsum) – Sludge or powdered sulfate and sulfite produced through a process used to reduce sulfur dioxide (SO₂) emissions from the exhaust gas system of a coal-fired boiler.

Of the 136 million tons of CCRs generated nationwide in 2008 by roughly 495 coal-fired power plants, approximately 34 percent were disposed in landfills, 22 percent in surface

¹U.S. Energy Information Administration (p.1) at <http://www.eia.gov/energy/electricity/epa/figs1.html>.

²FRCC's 2011 Load & Resource Plan, pp. S-17 to S-19, at http://www.psc.state.fl.us/utilities/electricgas/docs/FRCC_2011_Load_Resource_Plan.pdf.

impoundments,³ and 8 percent in mines. The remaining 37 percent were recycled as in concrete, gypsum wallboard, or other beneficial uses.

The Florida power plants subject to this review generated approximately 3 million tons of CCRs in 2010, with about 25 percent stored or disposed in landfills, 3 percent in surface impoundments, 5 percent in other storage facilities, and 67 percent beneficially used. In 2010, the combined Florida cost for disposal totaled about \$2.4 million. Sales revenue for the residuals was over \$3.8 million. In Florida, CCR storage and disposal and beneficial recycling are regulated by the Florida Department of Environmental Protection (FDEP). The FPSC also has regulatory authority pursuant to Chapter 366, Florida Statutes, over electric utility operations, safety, and rates which could be impacted by the increased regulatory costs associated with the EPA's proposed rules. As required by existing rules and statutes, power plants in Florida are permitted or licensed, and are required to monitor groundwater impacts from ash storage areas or settling ponds by one of the following ways:

- National Pollutant Discharge Elimination System permit and groundwater permit
- Separate groundwater permit
- ◆ Solid waste permit
- Conditions of certification under the Florida Power Plant Siting Act

2008 TVA KINGSTON SPILL

Due in large part to the environmental impact of the CCR spill at the Tennessee Valley Authority's (TVA's) Kingston facility in 2008, the EPA has proposed rules to regulate CCRs as hazardous wastes. Future regulation of CCRs could restrict disposal in liquid form and require additional liners or capping of existing CCR ponds.

Following the TVA ash spill in 2008, the EPA requested detailed information from coal-fired electric utility plants to identify and assess the structural integrity of their CCR surface impoundments, dams, or other management units. Staff reviewed the responses to the EPA's requests and notes that none of Florida's coal-fired electric utility plants are on the "high hazard potential" ratings list. Hazard potential ratings are generally assigned by state dam safety officials.

EPA's April 2010 regulatory impact analysis contains a list identifying the electric utility plants that have reported historical contamination release events, involving CCR surface impoundments, within the years 1999 to 2008. None of Florida's coal-fired electric utility plants are on this list.

The EPA's risk assessment analysis concluded that absent proper disposal contaminants from CCRs leak into groundwater. On June 21, 2010, the EPA proposed rules that would regulate CCR disposal by electric utilities. The EPA also requested and reviewed comments on whether certain forms of beneficial uses should be regulated, such as the use of CCRs in embankment fill and some agricultural applications. At this time, the EPA is not proposing to regulate beneficial uses of CCRs on a federal level.

EPA PROPOSED REGULATIONS

The EPA has proposed two regulatory schemes to regulate CCRs. In the Resource Conservation and Recovery Act under Subtitle C, CCRs are classified as "special waste", and

³Surface impoundments are natural topographic depressions, man-made excavations, or diked areas formed primarily of earthen materials (although may be lined with man-made materials), which are designed to hold an accumulation of liquid wastes or wastes containing free liquids, and which are not injection wells. Examples of surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons.

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classified as "non-hazardous waste" under Subtitle D. Both schemes require liners and groundwater monitoring on new landfills receiving CCRs. The primary differences in the two plans involve the interim management of CCRs prior to disposal, treatment of existing disposal facilities, as well as implementation and enforcement.

Subtitle C regulates CCRs as hazardous waste. It includes measures intended to result in a phase out of existing surface impoundment facilities for the wet storage of CCRs. This approach also creates a comprehensive program of requirements for waste disposal that would be directly enforceable by the federal government through state or federal permit programs. Due to Florida's statutory prohibition of hazardous waste landfills, the disposal and beneficial use of CCRs in Florida would be prohibited. Absent legislative amendment, CCRs will have to be transported out-of-state for disposal or for beneficial use. States would be required to adopt the rule before it would become effective. The EPA expects that rule adoption by the states could take several years.

Under Subtitle D, the EPA would set performance standards for CCR disposal and would require liners on existing impoundments where CCRs are stored in wet form. The EPA expects this would induce utilities to close existing impoundments and increase the disposal of CCRs in dry form. This approach would go into effect perhaps as early as six months after promulgation of the rules because it would not require state or federal permit programs. The rules would not be federally enforceable, but would be primarily enforced through citizen litigation.

The EPA prepared a Regulatory Impact Analysis to estimate the costs and benefits of the two regulatory approaches under various scenarios. The EPA estimates nationwide annualized costs of \$1.5 billion for the first approach and \$0.6 billion under the second approach. The EPA's cost estimates include industry compliance costs, as well as state and federal monitoring and enforcement costs. The EPA contends that the rules will have "widespread environmental and economic benefits," including: benefits associated with groundwater protection, prevention of future ash spills, and encouragement of recycling into beneficial uses. There has been disagreement whether the EPA's proposed rules will increase or decrease beneficial uses for CCRs.

The EPA's annualized benefit estimate under Subtitle C is \$7.4 billion based on induced future annual increases in beneficial use. However, potential decreases in beneficial use could reduce potential benefits by \$0.1 billion to \$3.0 billion per year nationwide.⁴



The EPA released its proposed rules on June 21, 2010. The public comment period ended on November 19, 2010. The final rules are anticipated in 2012. The timing of compliance would depend on the rule option adopted, with full compliance expected by 2018. Both rules provide a five-year window for utilities to install required liners on existing CCR surface impoundments. Appendix A contains a summary of the EPA's proposed rules and Appendix B lists the key differences between the rule options.

⁴EPA's August 20, 2010 Proposed Rule Update at <http://www.regulations.gov/#documentDetail;D=EPA-HQ-RCRA-2009-0640-2690>.

1.3 FINDINGS AND CONCLUSIONS

WHAT ARE AUDIT STAFF'S FINDINGS AND CONCLUSIONS?

Each of the four IOUs are proactively managing CCR storage and disposal activities. All four IOUs are taking steps to market CCRs for beneficial use with varying degrees of success, and each employ management oversight of storage and disposal operations. The company self-assessment information reflected in Exhibits 2 and 3 appears to indicate general compliance with applicable federal, state and local regulations pertaining to CCR storage and disposal.

In addition, audit staff believes each company is assessing the potential operational changes and impacts of the proposed EPA regulations. The companies state that they continue to monitor the proceeding and will conduct a more thorough cost analysis once the EPA issues its final rules.

Audit staff's findings specific to each of the company's CCR management processes are as follows:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

FPL

FPL does not operate any coal-fired power plants, but it is co-owner of two coal-fired electric power generation units at JEA's Plant St. Johns and one at Georgia Power's Plant Scherer. According to the company, JEA marketed 47 percent of its CCRs produced at Plant St. Johns. The percentage of CCRs marketed by Georgia Power at Plant Scherer cannot be determined from the data that is available to FPL under its operating agreement with Georgia Power. Audit staff encourages FPL to continue collaborating with its ownership partners to ensure that they use effective marketing practices for the CCRs produced.

CONCLUSIONS

Approximately three million tons of CCRs are generated per year by the Florida IOUs subject to this review. In 2010, the combined cost of CCR storage and disposal totaled about \$2.4 million, while CCR sales revenue was over \$3.8 million. The percent of CCRs marketed for beneficial use varied among the IOUs, from a low of 41 percent to a high of 86 percent.

Audit staff notes that the IOUs each have their own unique CCR production, storage and disposal issues. The utilities should continue to review their operations, identify areas for improvement, and make changes to their CCR storage and disposal processes that may be necessary. All companies are encouraged to either continue or increase their marketing of CCRs for beneficial use.

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2.0 OVERVIEW OF OPERATIONAL COMPLIANCE

2.1 OBSERVATIONS

HOW MUCH OF THE COAL COMBUSTION RESIDUALS ARE PRODUCED, MARKETED, STORED OR DISPOSED BY THE FLORIDA IOUs, AND WHAT ARE THE ASSOCIATED COSTS AND REVENUES?

Combined, the Florida utilities produced just under three million tons of CCRs in 2010. Approximately 67 percent of the residuals produced were marketed for beneficial use with the remainder stored or disposed. In 2010, the combined Florida cost for storage and disposal totaled about \$2.4 million. Sales revenue for the residuals was over \$3.8 million. **Exhibit 1** shows a summary of the amounts of CCRs produced, marketed, stored or disposed, and the associated costs and revenues in 2010 for each company.

**CCR PRODUCTION/STORAGE/DISPOSAL/SALES
DECEMBER 2010**

	Produced	Marketed	Stored	Disposed	Cost	Revenue
FPL	344,028 ⁵			155,246 ⁵		681,465
Total	2,800,554	1,185,088		906,084	\$2,444,001	\$3,813,554

EXHIBIT 1

Source: Supplemental Document Request 2.7(a),(b)

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Data not provided by Georgia Power to FPL

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WHAT IS THE STATUS OF THE UTILITY'S COMPLIANCE WITH THE CURRENT COAL COMBUSTION RESIDUAL STORAGE AND DISPOSAL REQUIREMENTS?

Exhibits 2 and 3 below reflect each IOU's self-assessment of the status of compliance with the current requirements for the disposal of CCRs in Florida.⁶ Exhibit 2 identifies the self-assessments for surface impoundments, and Exhibit 3 identifies the self-assessments for landfills.

⁶EPA's April 2010 RIA at <http://rflibrary.files.wordpress.com/2010/05/epa-hq-rcra-2009-0640-0003.pdf>, provides a summary of baseline state government requirements for both landfills and surface impoundments. See <http://www.regulations.gov/#/documentDetail;D=EPA-HQ-RCRA-2009-0640-0003;oldLink=false>.

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[REDACTED]

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OVERVIEW OF OPERATIONAL COMPLIANCE

(11)



FPL

Jacksonville Electric Authority's (FPL's ownership partner) states that the CCR landfills at its St. Johns River Power Park (Plant St. Johns) are in compliance with all relevant and applicable federal and state laws and rules pertaining to CCR management. JEA further notes that its CCR landfills at Plant St. Johns are addressed by FDEP on a case-by-case basis.¹⁰ The company states that it performs groundwater monitoring pursuant to its groundwater monitoring plan approved by FDEP, and that caps, dust controls, run-on/run-off, and post-closure monitoring controls are all in place as approved by FDEP. JEA further states that liners, leachate collection systems, daily covers, and financial assurance are not required.

Georgia Power Company (FPL's other ownership partner) states that its CCR management facilities at Plant Scherer in Georgia are currently in compliance with all applicable federal and state of Georgia requirements. Georgia Power also states that it operates flue gas desulfurization (FGD) systems at certain of the Plant Scherer units (not including Unit 4 until 2012), and that the on-site solid waste landfill is permitted by the state of Georgia and is primarily operated for FGD gypsum storage and disposal. This permitted landfill has a leachate collection system, groundwater monitoring, and is a lined facility. Plant Scherer's ash pond wastewater discharge is subject to a NPDES permit issued by the state of Georgia, and Georgia Power states Plant Scherer is in compliance with that permit.

¹⁰JEA states that typical municipal solid waste landfill requirements (e.g., liners) are not automatically applied to these facilities and through a case-by-case evaluation owners and operators of CCR landfills are required to provide reasonable assurance to FDEP that such facilities will not cause pollution in violation of FDEP standards.

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GCR ENGINEERING CONTROL REQUIREMENTS SURFACE IMPOUNDMENTS IN FLORIDA													
1	2	3	4	5	6	7	8	9	10	11	12	13	14

The inputs in the "Pass or Fail" columns refer to the issue of compliance with the minimum requirements reflected in the EPA's Appendix E at <http://www.regulations.gov/documentDetail?D=EPA-HQ-RCRA-2000-0640-0003;oldLink=false>.

EXHIBIT 2

Source: Company Responses to Supplemental DR2

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OCR ENGINEERING CONTROL REQUIREMENTS LANDFILLS IN FLORIDA												
Area	Year	Area I	Area II	Area B	Yes	Pass	N/A	N/A	Pass	Pass	Pass	Pass
St. Johns River	Area I: 1987 Area II: 2001 Area B: 2009	Pass	No	Pass	Pass	Yes	Pass	N/A	N/A	Pass	Pass	Pass

Note: The inputs in the "Pass or Fail" columns refer to the issue of compliance with the minimum requirements reflected in the EPA's Appendix E at <http://www.regulations.gov/#documentDetail:D=EPA-HQ-RCRA-2009-0640-0003;pdfLink=false>.

EXHIBIT 3

Source: Company Responses to Supplemental DR2

WHAT PREVENTATIVE MEASURES HAVE BEEN TAKEN BY FLORIDA UTILITIES TO MITIGATE RISK OF HARM TO THE PUBLIC HEALTH AND ENVIRONMENT?

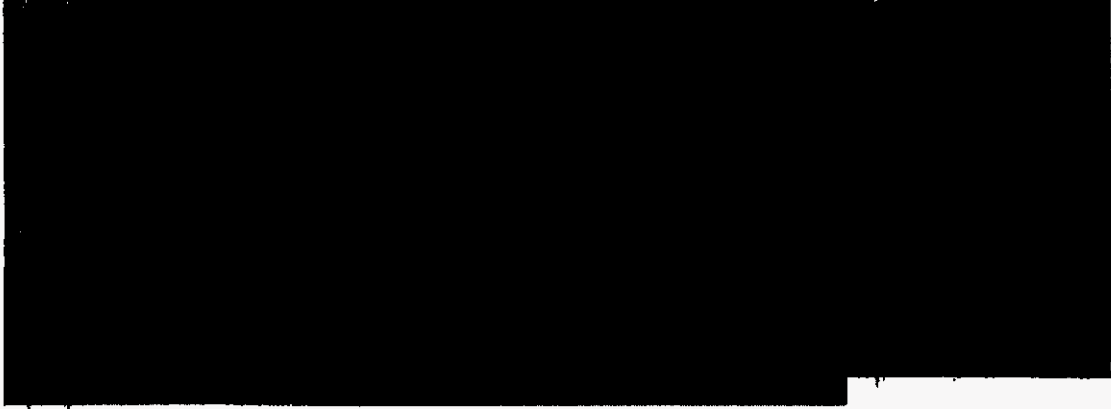
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



FPL

For JEA's Plant St. Johns and Georgia Power's Plant Scherer, which are partly owned by FPL, the companies state that none of their CCR management units are closed-cycle, zero-discharge systems. Both JEA and Georgia Power state that they are not taking any actions to implement CCZD systems to eliminate the waste stream, nor are they aware of any federal law, state law or rule that requires implementation of such systems. JEA states that Plant St. Johns operates a flue gas desulfurization (FGD) system, and the associated FGD wastewater is routed to the on-site industrial wastewater facility for treatment prior to discharge as an internal NPDES outfall into the cooling tower blow down line, which ultimately discharges as the main plant NPDES outfall. Similarly, Georgia Power states that at the Plant Scherer units with operational FGD systems (not including Unit 4 until 2012), FGD gypsum is generated and transported with sluice water and upon settling within the rim stack CCR landfill, the supernatant water is recycled back to the FGD unit as makeup.

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Chapter 6

Of CCR Report

6.0 FLORIDA POWER & LIGHT COMPANY

6.1 COAL COMBUSTION RESIDUAL MANAGEMENT

HOW MUCH AND WHAT TYPES OF COAL COMBUSTION RESIDUALS ARE PRODUCED, MARKETED, STORED OR DISPOSED BY THE UTILITY AND WHAT ARE THE ASSOCIATED COSTS AND REVENUES?

FPL does not operate any coal-fired power plants, but it is co-owner of three coal-fired electric power generation units with a combined capacity of 900 MW with JEA and Georgia Power. Exhibit 11 shows the amounts, by type, of CCRs produced, marketed, stored or disposed for 2008 through 2010, including the disposal costs and sales revenues for the jointly-owned Units 1 and 2 of JEA's Plant St. Johns. In 2010, Plant St. Johns marketed 47 percent of its CCRs with total sales revenues of \$773,323. FPL's share of these revenues for 2010 was \$386,662. Of the plant total disposal cost of \$1,086,718, FPL's share was \$543,359.

JACKSONVILLE ELECTRIC AUTHORITY ST. JOHNS RIVER POWER PARK CCR PRODUCTION/SALES/STORAGE/DISPOSAL								
		2008	2009	2010	2008	2009	2010	Disposition
		(Tons)	(Tons)	(Tons)	(\$)	(\$)	(\$)	
2008	Fly Ash	360,686	134,634	226,052	\$791,192	\$0 ^a	\$0 ^a	OAS ^b Landfill
	High Carbon Ash	25,805	25,805	0	\$0	\$0 ^a	\$0 ^a	OAS ^b Landfill
	Bottom Ash	34,319	27,164	7,156	\$25,042	\$6,791	\$0 ^c	OADB ^d Landfill
	Gypsum	91,661	91,661	0	\$0	\$963,277	\$0 ^e	BSA ^f Landfill
	No-use Byproduct	31,618	0	31,618	\$110,663	-	-	PSB ^g Landfill
2008 Total		544,089	279,264	264,825	\$926,897	\$970,068	-	-
2009	Fly Ash	353,776	114,676	239,100	\$836,850	\$0 ^a	\$0 ^a	OAS ^b Landfill
	High Carbon Ash	46,082	46,082	0	\$0	\$0 ^a	\$0 ^a	OAS ^b Landfill
	Bottom Ash	33,863	0	33,863	\$118,521	\$0 ^c	\$0 ^c	OADB ^d Landfill
	Gypsum	71,049	71,049	0	\$0	\$822,605	\$0 ^e	BSA ^f Landfill
	No-use Byproduct	39,178	0	39,178	\$137,123	-	-	PSB ^g Landfill
2009 Total		543,948	231,807	312,141	\$1,092,494	\$822,605	-	-
2010	Fly Ash	386,687	141,052	244,635	\$856,222	\$0 ^a	\$0 ^a	OAS ^b Landfill
	High Carbon Ash	46,661	46,661	0	\$0	\$0 ^a	\$0 ^a	OAS ^b Landfill
	Bottom Ash	34,918	0	34,918	\$122,213	\$0 ^c	\$0 ^c	OADB ^d Landfill
	Gypsum	92,572	88,089	4,503 ^h	\$15,761	\$773,323	\$0 ^e	BSA ^f Landfill
	No-use Byproduct	26,435	0	26,435	\$92,622	-	-	PSB ^g Landfill
2010 Total		586,279	275,782	310,491	\$1,086,718	\$773,323	-	-

^aOn-site disposal;

^bOn-site ash silos (OAS);

^cAsh is marketed to a third party at a zero price, producing zero revenue, but avoiding landfill disposal costs;

^dOn-site ash dewatering bins (OADB);

^eByproduct Storage Area;

^fPre-sedimentary basins;

^gHigh amount of gypsum disposed due to economic downturn in the building sector.

EXHIBIT 11

Source: Supplemental Document Request 2.3

For the jointly-owned Unit 4 at Georgia Power's Plant Scherer (in Georgia), Exhibit 12 shows the amounts, by type, of CCRs produced, marketed, stored or disposed for 2008 through 2010, including the associated disposal costs and sales revenues. In 2010, FPL's portion of fly ash marketed was [REDACTED] with a sales revenue of [REDACTED].

GEORGIA POWER COMPANY PLANT SCHERER CCR PRODUCTION/SALES/STORAGE/DISPOSAL									
Year	CCR Type	Produced (tons)	Marketed (tons)	Disposed (tons)	Disposal Cost	Sales Revenue	Storage Location	Disposal Location	
2008	Fly Ash ^a								
	Bottom Ash								
	No-use Byproduct								
2008 Total									
2009	Fly Ash ^a								
	Bottom Ash								
	No-use Byproduct								
2009 Total									
2010	Fly Ash ^a								
	Bottom Ash								
	No-use Byproduct								
2010 Total									

EXHIBIT 12

Source: Supplemental Document Request 2.3

HOW DOES FPL STAY ABREAST OF COAL COMBUSTION RESIDUAL ACTIVITIES AND ISSUES AT PLANT ST. JOHNS AND PLANT SCHERER?

FPL states that it expects the operating partners, JEA and Georgia Power, to manage CCR storage and disposal programs in full compliance with all applicable federal, state and local regulations and to be consistent with prudent industry practices. FPL anticipates that, whenever practical, CCRs will be beneficially used rather than placed for long-term storage. FPL participates in an ownership group to which the operating partners provide information regarding changes to regulations or processes at the facilities.

FPL employees are located at Plant St. Johns and Plant Scherer to monitor plant operations and represent FPL's ownership in the jointly-owned facilities. The employees interface with their respective plant operating staffs on a daily basis to be familiar with immediate operating conditions, potential issues affecting the plant, common facilities operation, and to ensure compliance with operating agreements.

FPL receives monthly operating reports from each plant operator, including information on the number of environmental reportable events, and there is a regularly scheduled bi-weekly conference call with Plant Scherer regarding environmental issues. Formal operating committee meetings are conducted at the sites (monthly for Plant St. Johns and quarterly for Plant Scherer Unit 4) to review current and year-to-date operating performance, root cause analysis on operating issues, emerging plant issues, and business plan updates.

WHAT ARE THE UTILITY'S COAL COMBUSTION RESIDUAL STORAGE AND DISPOSAL ACTIVITIES AND PROGRAMS?

JEA

JEA states that pursuant to Chapter 403, Florida Statutes, management and disposal of CCRs generated at Plant St. Johns is authorized by a power plant site certification order and conditions issued by Florida's Siting Board (comprised of Florida's Governor and Cabinet.) Specifically, Section XII of the Conditions of Certification Issued for Plant St. Johns Units 1 and 2 addresses the design, construction, and operation of the coal combustion waste management areas. These requirements include, but are not limited to, groundwater monitoring and reporting as necessary, and compliance with Chapter 62-872, F.A.C., in the construction of perimeter berms associated with coal combustion waste management areas.

The CCRs generated at Plant St. Johns are transported to the storage area by rear dump trucks. Bottom ash and pyrites are loaded by conveyor belts from the dewatering bins to a load-out area to either be transported off-site for beneficial use or transported, via rear dump truck, to the on-site storage area. Fly ash is pneumatically conveyed from the electrostatic precipitator hoppers to the fly ash load-out silos located directly above a truck access to transport to the on-site storage area or off-site for beneficial use.

GEORGIA POWER

Georgia Power's CCRs produced from the generation of electricity at Plant Scherer are either wet sluiced to the ash pond or sold for beneficial use. In 2010, approximately 73 percent of the CCRs at Plant Scherer were fly ash. Fly ash not sold and all bottom ash go to the ash pond for storage and disposal. Plant Scherer also has a solid waste landfill that is permitted by the State of Georgia and is primarily operated for gypsum storage and disposal. This permitted landfill has a leachate collection system, groundwater monitoring, and is lined.

Plant Scherer's ash pond wastewater discharge is subject to a National Pollutant Discharge Elimination System permit issued by the State of Georgia, and Georgia Power states Plant Scherer is in compliance with that permit. The utility believes the Southern Company Services quarterly inspections provide Plant Scherer with access to the best practices within the industry. This ensures that Plant Scherer's ash pond meets all applicable local, state, and federal regulations.

WHAT DOES THE UTILITY DO TO MARKET COAL COMBUSTION RESIDUAL FOR BENEFICIAL USE?

According to JEA's reported data as reflected in Exhibit 11, approximately 47 percent of the CCRs produced at the jointly-owned facility were marketed for beneficial use in 2010. Plant St. Johns has agreements with Separation Technologies (fly ash and bottom ash), and USG Corporation (synthetic gypsum) for the sale of CCRs. High carbon fly ash has been sold and transported off-site for cement production. In addition, agricultural entities have recently approached Plant St. Johns and procured synthetic gypsum.

Based on Georgia Power's reported data as reflected in Exhibit 12, the percentage of CCRs marketed for beneficial use in 2010 by Georgia Power, on behalf of FPL, cannot be determined from the data that is available to FPL under its operating agreement with Georgia Power. Georgia Power has contracted with a leading ash marketer that sells Plant Scherer's fly ash for multiple beneficial uses such as concrete, mineral filler, and exterior trim. The ash marketer has an active research facility that continually develops new and better uses of fly ash to improve products and to benefit the environment through increased recycling. Additionally, Georgia Power continuously seeks additional opportunities for beneficial uses of its CCRs.

Audit staff encourages FPL to collaborate with its ownership partners to ensure that they use a competitive bidding process because CCR beneficial use sales and revenues could potentially be increased through such process. Also, although the revenues may be relatively small, cost savings associated with the reduction in storage and disposal activities should be realized.

6.2 RISK MANAGEMENT

DOES THE UTILITY EMPLOY ADEQUATE MANAGEMENT OVERSIGHT AND APPROPRIATE CONTROLS FOR ITS SOIL STORAGE AND DISPOSAL OPERATIONS?

JEA

JEA states that CCRs generated at Plant St. Johns that have not been transported off-site have been placed in on-site dry storage areas. Plant St. Johns does not have wet ash ponds. The company states that the design, development, monitoring, operations, and maintenance of the dry storage areas significantly reduces associated risks.

Operations personnel at Plant St. Johns monitor the storage areas in accordance with the *Solid Waste Disposal Specifications and Best Management Practices*. Groundwater monitoring wells are sampled and analyzed by JEA with data submitted to FDEP on a quarterly basis.

Operators assess material placement with special attention to the side slopes and top of the storage areas for development of erosion channels. During and after rain events, side slopes are reviewed for erosion and formation of channels. Following the end of a rainstorm event and the detection of erosion, operations personnel redress the slopes and place topsoil and grade to re-establish the side slope contours.

GEORGIA POWER

Southern Company Services conducts quarterly inspections of the Plant Scherer ash pond and dam. Currently, the inspector for this dam is a professional engineer with over 20 years of experience in civil and geotechnical engineering, including slope stability studies and the design, construction, and inspection of dams and earth-fill embankments. The inspections of the Plant Scherer ash pond are reviewed by two other experienced Southern Company Services geotechnical engineers.

In addition to the quarterly dam safety inspections of the Plant Scherer ash pond, plant personnel perform daily and weekly inspections of the Plant Scherer ash pond dam and perform

inspections after a significant rain event. There are approximately 22 piezometers¹ on the ash pond dike that are read on a monthly basis to measure the groundwater level and flow direction. There have been no significant dam integrity issues identified for the Plant Scherer ash pond dam.

Quarterly inspections of the Plant Scherer ash pond culminate in a written report. These quarterly reports identify any ash pond dam issues to be addressed and document actions taken since the last inspection. There have been no significant dam integrity issues identified for the Plant Scherer ash pond dam according to FPL. The issues identified at the Plant Scherer ash pond have been maintenance issues.

HAS THE UTILITY PARTICIPATED IN THE EPA'S RULEMAKING OR ANY OTHER RELATED PROCEEDING CONCERNING COAL COMBUSTION RESIDUAL STORAGE AND DISPOSAL

NextEra, Inc., FPL's parent corporation, submitted comments to the EPA regarding its proposed CCR rules issued on June 21, 2010. FPL is not involved in any additional proceedings related to CCRs.

FPL participates as a member of the Utilities Solid Waste Activities Group and monitors developments in this rulemaking and associated efforts. When deemed appropriate, FPL will participate in developing testimony or providing comments on identified issues.

FPL does not support the classification of CCRs as hazardous waste as stated in the comments submitted for EPA's proposed rule on identification and listing. FPL believes the current approach to regulation as a non-hazardous waste under the Federal Resource Conservation and Recovery Act Subtitle D provisions provides adequate control and protection. FPL further believes that state authority to establish performance standards based on local geology and environments should be preserved in any rules promulgated by the EPA.

JEA states that if CCRs were to be declared a hazardous waste, the impact at Plant St. Johns would depend largely upon the determination of the point of waste generation, which was not addressed by EPA in its co-proposals. Numerous administrative requirements associated with hazardous waste facilities would be applied that would impact the handling and sale of CCR materials.

JEA filed comments with EPA and participated in the development of comments filed with EPA by FCG.² FCG's comments conclude, in part, that it is particularly opposed to Subtitle C regulations which would force FCG members to close all CCR landfills and surface impoundments because Florida's statutory law prohibits hazardous waste landfills. Similarly, Subtitle C regulation would prevent FCG members from being able to beneficially use CCRs in Florida because there is also a statutory prohibition on the beneficial use of hazardous waste. If the federal regulation of the residuals is adopted, however, FCG believes the proposed Subtitle D-prime is the only appropriate option and adds that even this option has significant shortcomings that must be modified to provide, at a minimum, adequate flexibilities to reflect

¹A piezometer is a permanent or temporary well that may be designed and constructed without the surface sealing or sand filter pack requirements of a monitoring well. This type of well is primarily used to detect the presence of free product or collect water-level elevation data to aid in determining the direction of groundwater flow. Rule 62-770.200, Florida Administrative Code, at https://www.flrules.org/GatewayView_notice.asp?id=2315407.

²Florida Electric Power Coordinating Group (FCG) is a non-profit association consisting of 28 investor-owned, municipally-owned, and cooperatively-owned electric utilities that provide the majority of electric power to the public in Florida.

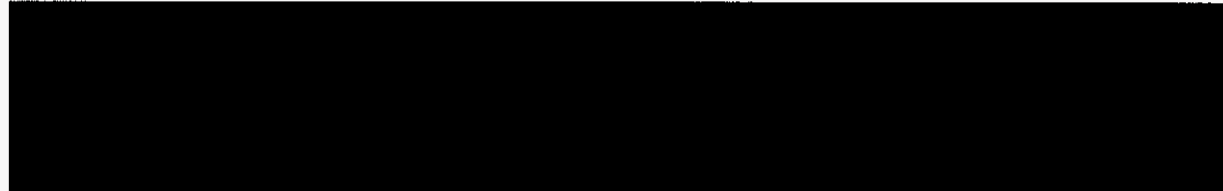
state and site-specific conditions. FCG notes, however, that many of the deficiencies and concerns associated with Subtitle D-prime can be overcome by applying the proposed regulations under a comprehensive CCR program modeled after the existing Municipal Solid Waste Landfill Program.

Both JEA and Georgia Power, as operators of Plant St. Johns and Plant Scherer, respectively, and FPL (co-owner of the plants) state that they will continue to closely monitor the EPA's rulemaking activities and will ultimately evaluate the impact on CCR management, beneficial use, storage, and disposal if the proposed federal regulation becomes law.

6.3 PERFORMANCE SELF-EVALUATION

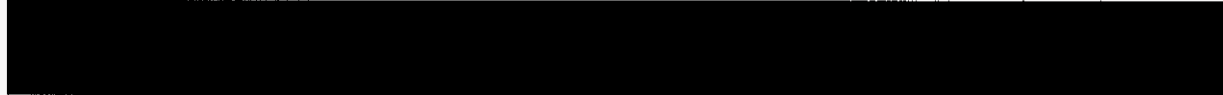
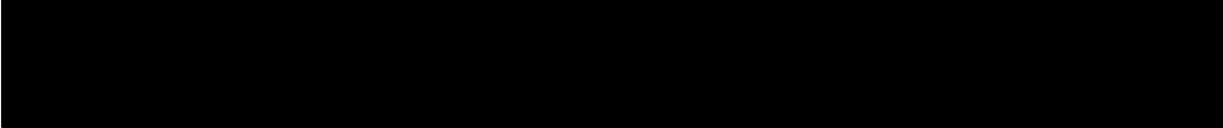
HAS THE UTILITY CONDUCTED ANY STUDIES OR ANALYSES ON ITS COAL COMBUSTION RESIDUAL STORAGE AND DISPOSAL MANAGEMENT PROCESSES?

FPL collaborates with its ownership partners, JEA and Georgia Power, to improve transparency in CCR management processes, studies or analyses, and facilitate compliance with all applicable federal, state and local regulations, and industry standards. FPL also participates in meetings with its partners during which an information exchange takes place regarding changes to CCR operations, regulations, or management processes at the facilities.



DOES THE UTILITY HAVE PROCESS IMPROVEMENT ACTIVITIES IN PLACE FOR ITS COAL COMBUSTION RESIDUAL STORAGE AND DISPOSAL MANAGEMENT PROCESSES (LESSONS LEARNED, PEER REVIEWS, ETC.)?

JEA states that Plant St. Johns stays current regarding industry developments through industry contacts, periodicals, as well as any legislation regarding CCR facilities management.



- ◆ [REDACTED]
- ◆ [REDACTED]
- ◆ [REDACTED]